



GradEX 2016

13 May
Stoke-on-Trent
and Stafford



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Stoke-on-Trent

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The North Staffordshire branch of the British Computer Society have generously sponsored the judges' lunch.



Professor Hastings McKenzie
EngD, CEng, MIMechE
Dean of Computing, Engineering
and Sciences



Doctor Astrid Herhoffer
PhD, MA
Dean of Arts and Creative Technologies

Welcome to GradEX 2016

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It is our great pleasure to welcome you all to GradEX, our annual exhibition of project work undertaken by final year students at Staffordshire University. This event features students from the Faculty of Computing, Engineering and Sciences and students from the Faculty of Arts and Creative Technologies showcasing their work. You can find our Engineering and Science students based in fantastic new facilities in the Mellor Building at the Stoke campus. As in previous years, our Computing students and Entertainment Technology students (Games, Film and Music) will be exhibiting their work at the Stafford campus.

The purpose of the exhibition is to allow our students to showcase their work to prospective employers, the public, friends, family, and colleagues, and it has become a well-established event in the University's calendar.

GradEX offers our students a chance to explain their work to others and as such it plays an important and formative role in their development. Key to GradEX's success is the involvement of employers and every year the personal interactions that take place between our students and key industry figures result in

genuine job offers and career opportunities. GradEX 2016 is sponsored by a range of employers and professional organisations. We are very grateful for their support as not only does it serve as a mark of recognition for the work of our students, but it also adds significant value and esteem to the event.

Thank you for taking the time to visit. We are very proud of our students and GradEX provides an excellent opportunity to celebrate their achievements. We both hope that you can share in this celebration and that you enjoy your day with us at Staffordshire University.



North Staffordshire Branch

Our mission as BCS, The Chartered Institute for IT, is to enable the information society. We promote wider social and economic progress through the advancement of information technology science and practice. We bring together industry, academics, practitioners and government to share knowledge, promote new thinking, inform the design of new curricula, shape public policy and inform the public.

Our vision is to be a world-class organisation for IT. Our 70,000 strong membership includes practitioners, businesses, academics and students in the UK and internationally. The British Computer Society has been instrumental in the support, development and recognition of Staffordshire University's School of computing which has recently celebrated its 50th year in 2015.

Joining BCS is a great idea...

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- First step towards Professional membership (MBCS)
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For more information, visit www.bcs.org



ELM Digital, designs and develops professional, exciting web applications. Our team has expert working knowledge of the latest technologies available to create modern and powerful websites. At ELM Digital, we strive to understand the needs of our clients to develop the website or web solution that best fits their needs. ELM Digital have worked with a wide variety of clients, from very small companies that need a simple online presence, to large organisations that are looking for modern and complex web applications. At ELM Digital, we truly enjoy working on a wide variety of projects and with varied clients – no challenge is too complex or too small.

ELM Digital is a division of the ELM Group which brings together a group of world-class experts to deliver high quality programmes for our clients. Our companies, while offering a wide range of services, share common values and philosophies. Our group name and ethos is built on the ELM. ELM trees are widely spread, rapid growing, strong and resilient. For many centuries, the ELM has been associated with revolution and liberty. The philosophy and growth of the ELM Group is based on these features.

The different ELM companies are focussed on helping our clients find solutions in often crowded and complex markets to “Liberate the Future” potential of their ideas, products and services. From managing major pharmaceutical brands to leading the Gamesmakers for the

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Please visit us at elmgrouppltd.com

Aeronautical and Automotive

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Ifeoluwa Adesina

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BSc (Hons) Aeronautical Technology

Proximity Sensor for UAVs

The aim of this project is to design and implement a proximity sensor on a UAV to help detect and avoid potential collisions.



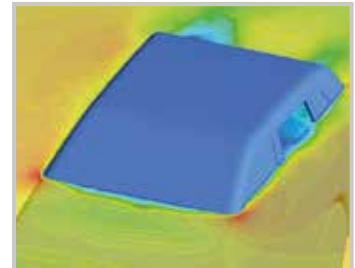
Ahmad Al-Mashoor

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BSc (Hons) Aeronautical Technology

Analysis of the SABRE Engine and Use of Heat Exchanger

Analysis of the Sabre Engine and the potential application of the Heat Exchanger (Pre-cooler) to a Rolls Royce Trent Engine is the aim and purpose of the project. Research will be performed to find the potential, advantages and disadvantages of using the pre-cooler.



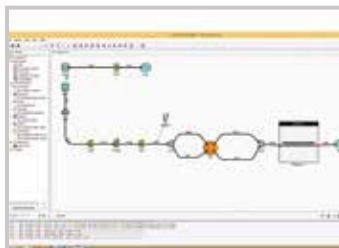
Joshua Beech

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BSc (Hons) Automotive Technology

An Aerodynamic Investigation into Open Car Windows

Opening the windows on a road vehicle at high speeds triggers wind-buffeting which can be fatiguing for both; the driver and passengers. This has been investigated using CFD software, focussing on the aerodynamic mechanism behind this phenomena which is supported by a study into the drag and wake flow changes.



Sarah Bonas

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BSc (Hons) Motorsport Technology

Two Cylinder Exhaust Tuning Investigation

It has long been recognised that exhaust tuning can be used to increase vehicle performance, with specific exhaust lengths having a desirable effect by increasing power and performance. This is the basis for this project as well as studying noise vibration harshness and public perception of the exhaust note.



Christopher Brookshaw

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BSc (Hons) Automotive Technology

Analysing Vehicle Chassis

Prior to production of a vehicle, analysis of the chassis is of great importance to vehicles dynamics; playing key roles in the performance is the structure and material used. Therefore using research and CAD based FEA analysis; data can be taken on how chassis are designed effectively and efficiently.



Nyasha Chikukwa

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BSc (Hons) Aeronautical Technology

Bat Wing Bio-mimicry to MAVs

Bio-mimicking a bat wing into an MAV wing by modelling and CAD.



George Collins

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BEng (Hons) Automotive Engineering

Unconventional Impacts: The Cost of Alternatives

In the modern world, consideration for the environment is increasing. The automotive industry is one where this consideration drives development. Is merit placed upon new technology too quickly, without proper assessment? The entire life cycle of an object must be considered in order to determine its overall impact.



Thomas Cooper

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**BSc (Hons) Motorsport
Technology**

Maximizing the Performance of a Two Stroke Engine

The purpose of this project is to maximize the performance of a two stroke engine using my own race engineering knowledge and experience in tuning. The following methods will be in evidence: Custom manufactured inlet manifold; Crankcase flowing; Cylinder porting; Cylinder head modification and Dyno development.



Alexander Cottis

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**BSc (Hons) Motorsport
Technology**

The Gains Achieved Using a Variable Compression Ratio System

For this project the benefits of using variable compression ratio as applied to four stroke engines will be examined. This will be further refined by applying this principle to a three cylinder engine.



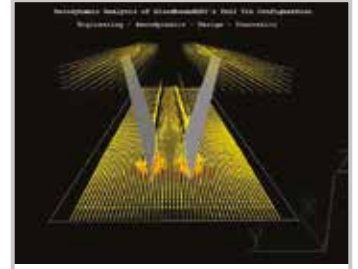
Benjamin Danquah

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**BSc (Hons) Aeronautical
Technology**

The Peripheral Anemometer

Anemometer/data logger used to increase flight stability.



Laura Davies

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**BSc (Hons) Aeronautical
Technology**

Aerodynamic Analysis and Redesign of BloodhoundSSC's Tail Fin

The critical analysis of the aerodynamic performance of BloodhoundSSC's current tail fin and the development of a refined design specification to undergo compressible and incompressible flows, utilising theoretical calculations, computational fluid dynamics and 3D printing to undertake applied wind tunnel testing.



Shakeb Deane

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**BSc (Hons) Aeronautical
Technology**

Redesigning an Airbus Flight Deck

The project is to redesign the Airbus side stick by adding a force feedback mechanism. This will be done by using springs, screw threads and motors to allow the side stick to move on its own with regards to speed. A CAD design model of this mechanism will be created and a video file will show the side stick move.



Rebecca Feely

**BSc (Hons) Motorsport
Technology**

Stress Analysis within a Roll Cage

Focusing on the analysis and development of the roll cage within an MX-5, it investigates the stress and how it is distributed once a load has been applied. Using the results to determine if any improvements can be made to the design or materials.



Andrew Green

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**BSc (Hons) Automotive
Technology**

Rear Roof Window Wing on a 2007 Hawk Eye Subaru

The aim to this project is to improve the design rear roof wing on the 2007 Subaru this is needed so that the best performance can be achieved. This will be done by measuring the original figures of how the wing performs then to take the design and improve it with various methods and test.



Nicholas Hancox

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**BSc (Hons) Motorsport
Technology**

Front Wing and Nose- section design within Formula One

Examining the aerodynamic and design advancements made in Formula One, by comparing a vehicle from 1994 to a 2015 vehicle. All Front Wing and Nose-sections are of original design, attached to a simplified Formula One car model and aerodynamically tested.



Rob Harvey

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BSc (Hons) Motorsport Technology

Liquid Petroleum Gas in Compression Ignition Engines

The production of a working dual-fuel diesel/LPG system suitable for compression ignition engines. Providing a transitional low emission vehicle (TLEV) solution for small passenger vehicles that reduces SO_x, NO_x, CO₂, CO and PM emissions whilst also increasing brake power and torque performance.



Christopher Johnson

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BSc (Hons) Aeronautical Technology

UAVs and their Stability - How Can It Be Affected?

Can a Phantom 2 UAV Drone have an increase in the maximum weight it can be before stability is lost? Also will an increase in propeller size or increase in the number of power-plants cause this value to change?



Christopher MacDonald

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BSc (Hons) Aeronautical Technology

AirCore Med-Evac - VTOL Air Ambulance Conceptual Design

Med-Evac is a VTOL emergency response Aircraft. Inspired from the successful influx of new flight configuration developments such as quadcopter UAVs and Tiltrotor technologies, the concept aims to utilise these innovations for saving lives quicker, more safely and more efficiently than current Air Ambulance vehicles.

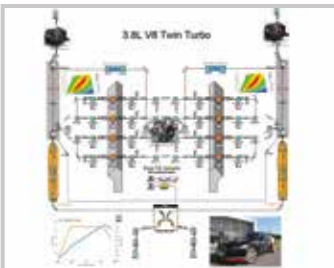


Anna Micheal

BSc (Hons) Aeronautical Technology

Designing a Homebuilt Aircraft

A pre pack kit of homebuilt aircraft was designed after taking an inspiration from seeing the Wright brothers monument. Everything was done from scratch including: choosing material, looking into equations, calculating equations, sketches, component types and finalising designing the product in a 2D or 3D software.



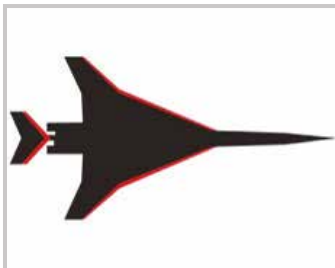
Tarvinder Nandhra

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BSc (Hons) Motorsport Technology

Variable Swept Volume and Cylinder Deactivation

My project will investigate the variable swept volume and the cylinder deactivation systems. Cylinder deactivation is used on the newer vehicles, these systems are used to help improve the efficiency of the engine and how well it's running, and deactivating the cylinders allows this to happen.



Andrew Newton

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BSc (Hons) Aeronautical Technology

Personal Supersonic Flight

Time isn't just a luxury; it's an opportunity. The Personal Supersonic Jet saves time with a maximum velocity of Mach 1.5. Commercial Supersonic flight has been made possible again! Technical advancements have overcome the limitations, implementing concepts to reduce adverse effects from sonic booms.



Thomas Palmer

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BSc (Hons) Aeronautical Technology

Improved Helicopter Autorotation and Crash Impact Survival

To develop a helicopter autorotation landing guidance system to aid a pilot in the event of an emergency landing due to reduced or no engine power. Also to develop a helicopter crash impact reduction system that will reduce force to the airframe, and thus the occupants, and stop it from rolling during a crash landing.



Joshua Pearman

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BSc (Hons) Motorsport Technology

Improving Road Car Efficiency with Active Aerodynamics

This project will explore the concept of active aerodynamics and its ability to improve the aerodynamic efficiency of the standard road car, using CAD and CFD analysis.



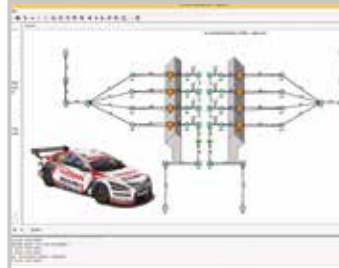
Rafael Penna

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BSc (Hons) Aeronautical Technology

Personal Shadowing Device

A quad-copter with a colour tracking device that will follow the chosen colour.



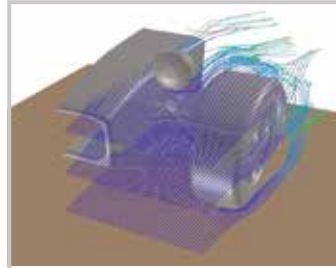
Thomas Perry

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BSc (Hons) Motorsport Technology

Optimising a Variable Valve Timing Map for a V8 Engine

Using the Ricardo Wave software package, a detailed model of a V8 engine will be produced containing all necessary information to simulate the running of the engine to ideal parameters. A specific map will then be identified and tested, optimising peak power and torque.



Adam Pinder

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BSc (Hons) Motorsport Technology

Reducing Drag of an Open Wheeled Vehicle

Open wheeled vehicles create drag as the wheel and often the suspension components protrude from the vehicle's body. One or more products would be designed and developed using CFD software and scale model wind tunnel testing to reduce the drag created around the wheel assembly therefore increasing vehicle performance.



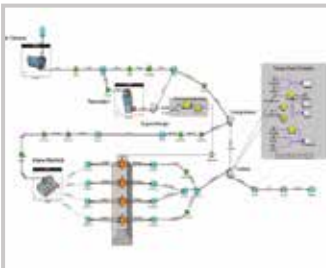
Jonathon Pitts

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BSc (Hons) Aeronautical Technology

UAV's Flying in Formation

This project is aimed towards developing a system where multiple UAV's will be controlled by a computer/application with pre-programmed formations that can be performed in real time. This will also enable the control of any UAV in that formation to divert from the formation and return back into its original place.



Rowan Portman

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BSc (Hons) Motorsport Technology

Modelling Fuelling Strategies for Emergency Power Generators

This project will investigate multi-fuel capability for diesel engines. An application for driving electrical generators with 100 kW output will be proposed. WAVE software will be used to create an engine with a suitably constant output delivery.



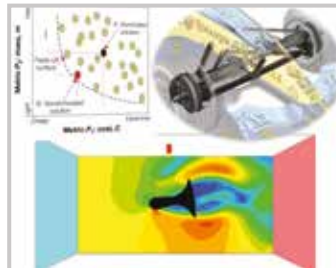
Gareth Price

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BSc (Hons) Motorsport Technology

Improving Efficiency and Fuel Economy in HGV Trailers

Due to the size and volume of goods that HGVs need to transport, operators are required to make the maximum use of load space and size that is legally available to them making them aerodynamically inefficient. Increasing aerodynamic efficiency can reduce fuel usage and therefore operating costs.



David Roberts

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BEng (Hons) Automotive Engineering

Aerodynamic Performance and Stiffness: A Compromise

In motorsport it is important to design components for optimal mechanical and aerodynamic performance. However these objectives usually conflict. Using software and merit indices alongside conflicting objective methods means there could be an easier way to design for both.



Graham Russell

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BSc (Hons) Motorsport Technology

Tuning Exhaust Tract Lengths to Optimise Torque

Tuning exhaust tract lengths to optimise torque from a naturally aspirated engine. This is to manage the placement and increase of torque on a given engine, at a given RPM, by changing the exhaust tract lengths.



Olumide Samo

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BSc (Hons) Motorsport Technology

Structural Analysis of a Space Frame Chassis

Space frame chassis are design to be as light as possible while having the structural rigidity and strength to withstand loading forces which the chassis is likely to undertake. The purpose of this project using Finite Element Method (FEM) is to increase the stiffness and reduce the weight of an Ariel Atom chassis.



Matthew Shenton

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BSc (Hons) Automotive Technology

Concept Car 'Smart Car' Incorporating Biometric Technology

An intelligent vehicle concept car incorporating biometric technology, that also integrates intelligent driver monitoring to prevent accidents related to alcohol, drugs and fatigue. The project also displays the concept of smart cities and how these can be linked with vehicles in the future.



Joe Storey

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BSc (Hons) Motorsport Technology

Supercharger Electromagnetic Clutch Pulley Development

The project's focus being to examine the research and development design of supercharger electromagnetic pulley operation, and its application to current road vehicles. Including the adaptations and modifications needed to enable fitment and required parts.



Marc Timko

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BSc (Hons) Motorsport Technology

Open-Wheel Race Car Closed Cockpit Aerodynamic Efficiency

An investigation into the aerodynamic effect and potential technical issues of a closed cockpit design for an open-wheel race car, whilst designing an aerodynamically effective version taking safety factors and in-depth research into account.



Vivek Vashi

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BSc (Hons) Automotive Technology

The Improvement and Influences of Aerodynamic Efficiency

This project focusses on aerodynamics within the automotive industry, the way advancements have been made and the effects that have taken place. The regulations for fuel economy to improve and also because higher speeds are reached at quicker rates so the stability of the vehicles is becoming increasingly important.



Raghav Wadhwa

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BSc (Hons) Motorsport Technology

Vehicle Exhaust Acoustics

Sound quality plays an important role in customer's perception of product quality. Vehicle sound can help determine the type of vehicle and has direct impression on customer's mind. Can modifying engine's exhaust manifold tract lengths change the way a vehicle sounds and thus affect its perception in customer's mind?



Kristian Washington

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BSc (Hons) Aeronautical Technology

Effects of Fatigue on Pilot Performance and Flight Safety

The aim is to investigate and compare performance levels of pilots with normal and significant fatigue levels in both short and long-haul operations, and examine aviation rules and legislation to comprehend if they protect pilots from fatigue and promote flight safety.



Jack Webb

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BSc (Hons) Aeronautical Technology

An Unconventional and Innovative Light Aircraft Design

The focus of this project is to design and model an aircraft which is both unconventional and innovative. Achieved by using regulation and mathematical calculations, the aircraft will be modelled in CAD software and the viability of the design reviewed using CFD software.



Matthew Wilbrey

m.wilbrey@gmail.com

**BSc (Hons) Automotive
Technology**

**Adaptive Driving Seat for
Ankylosing Spondylitis
Sufferers**

Over 200,000 people suffer from Ankylosing Spondylitis in the UK alone. Many of these patients have difficulty driving their car due to discomfort and pain that the disease can cause. This project has designed a smart/adaptive seat that can be retrofitted into a patient's car to aid the user to drive more comfortably.



Jason Wood

jasondwood1992@gmail.com

**BSc (Hons) Aeronautical
Technology**

**The Feasibility of a Road
Vehicle with Airborne
Capability**

For years people dreamed of taking to the skies. My project aims to make this dream a reality. My project is the design of a road vehicle which has the capability to be used as a light aircraft. It will include designs for the body and the cabin of the vehicle. Ideas for the mechanical systems will also be included.

Biological Science

STOKE-ON-TRENT



Mukadim Ahmed

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BSc (Hons) Human Biology

Effects of Turmeric on Lipid Peroxidation in Humans

This project evaluates whether lipid peroxidation and oxidative stress levels are affected when Turmeric supplements are consumed. Monitoring the efficacy of turmeric on malondialdehyde levels in blood plasma and monitor the lipid peroxidation, which correlates to the levels of free radical oxidative stress in the body.



Josh Beavis

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BSc (Hons) Biology

Supplementing Prescribed Medicines - A Deadly Conflict?

Past research has shown that many plant-derived chemicals can modulate the metabolism of numerous prescribed medicines. With the use of plant-based treatments increasing and patient safety in mind, here the effects of Ferulic Acid, a chemical found ubiquitously in plants and herbs, on isoenzyme CYP3A4 are explored.



Matthew Bradley

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<http://muudiscovery.blogspot.co.uk>

BSc (Hons) Biology

Investigating Green Space Habitat Usage in *Pipistrellus* sp.

Redevelopment of urban green areas is on the rise. This is of concern to bat conservationists, as little is still known of their urban habitat usage within established green spaces. The purpose of this project is to determine the fine-scale habitat preferences of two of our most widespread species of microchiroptera.



Steven Bratt

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BSc (Hons) Biology

Anti-microbial Properties of Garlic (*Allium sativum*)

Folk medicine has long proposed that garlic has a wide range of beneficial properties such as anti-bacterial, anti-fungal, anti-inflammatory and many more. The aim of this study is to determine whether the anti-bacterial properties are affected by exposure to heat applied during a small selection of cooking processes.



Charlie Carter

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BSc (Hons) Forensic Biology

The Effect of DNA Recovery on the Quality of Latent Fingermarks

The aim of this project is to use a variety of different DNA recovery methods to analyse the effect which these recovery methods have on the quality of latent fingermarks. This project aims to look at whether DNA and fingermarks can be jointly recovered from a scene of crime.



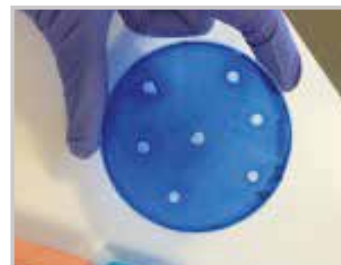
Hannah Caswell

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BSc (Hons) Animal Science with Animal Behaviour

Effectiveness of Feeding Enrichment for Geoffroy's Marmosets

Providing primates with enrichment is common so an investigation will take place to look at the effectiveness of a feeding enrichment device provided to 2 Geoffroy's Marmosets. Each interaction with the device will be timed and recorded to see if the interaction time decreases therefore reducing the effectiveness.



Charlotte Colucci

charl-colucci@hotmail.co.uk

BSc (Hons) Biology

Effects of Selenium on Serum, Salivary IgA and WBC

The aim is to investigate if the dietary selenium supplement will have any effects on serum and saliva IgA concentrations in addition to the full white blood cell count. The generated hypothesis states "there will be a significant increase in full white blood cell count and serum and salivary IgA".



Luke Comley

BSc (Hons) Animal Science with Animal Behaviour

Feeding Yellow Mongoose and Effects on Aggression

The purpose of this study is to see if feeding yellow mongoose with scatter feeding compared with bowl feeding will have a significant effect on aggression when fed. Also if the time of day and gender will have a significant effect on aggression. This will be tested using a series of observations.



Adam Corden

BSc (Hons) Biomedical Science

Painkillers: The Fountain of Youth in Plain Sight?

Painkillers such as Aspirin and Ibuprofen are cheap and readily available, but could they hold the key to a longer life? Using the model organism *Drosophila melanogaster* this study investigates the effects of these drugs and whether they have life extending properties.



Ashley Cox

acoxy92@hotmail.com

BSc (Hons) Animal Science with Animal Behaviour

Enclosure use in Cotton-top Tamarins (*Saguinus Oedipus*)

The project will be using Cotton Top-tamarins (*Saguinus oedipus*). It will be looking at enclosure usage in a poorly designed naturalistic enclosure compared to a appropriately designed non-naturalistic enclosure. There is not much information on Callitrichid enclosure usage and this information could be used by zoos.



Charlotte Darvill

ckdarvill@gmail.com

BSc (Hons) Human Biology

Is *Nosema Ceranae* more Prevalent than *Nosema Apis*?

Nosema apis has infected European honey bees since the beginning of the 20th Century, having little or no impact on the honey bee population. By contrast, Asian species *Nosema ceranae* (first found in Europe in 1996) has been linked to honey bee depopulation. Is *Nosema ceranae* now more prevalent than *Nosema apis*?



Zoe Edwards

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BSc (Hons) Biology

The Antimicrobial Properties of Breast Milk

Breast milk holds several unique properties which have previously been used to treat certain mild conditions such as eczema and conjunctivitis. To investigate this further a design has been made to test the antimicrobial properties of two types of breast milk; colostrum and mature milk against certain strains of bacteria.



Isobella Emmens

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BSc (Hons) Human Biology

Combining Existing Treatments for Breast Cancer

Combination chemotherapies could lead to a more effective treatment for breast cancer. Different chemotherapies induce apoptosis in various ways and can be categorised accordingly. Combining chemotherapies which take effect at different stages of cell growth is favourable, as there are more opportunities to take effect.



Georgina Fisher

BSc (Hons) Animal Biology and Conservation

Escherichia Coli and *Salmonella* in Dog Faeces

Testing for the presence of *Escherichia coli* and *Salmonella* in dog faeces left at popular dog walking sites by the owner and assessing the potential risk to the public and their health.



Brandon Fox

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BSc (Hons) Animal Biology and Conservation

The Feeding Behaviour of Insect Pests

Insect resistance of pesticides is an ongoing problem in agriculture; limiting the efficiency of pesticides as a defence against insect pests of crops. Researching nutrient preferences of insect pests will underpin future control measures of insect pests, combating the feeding behaviour of insect pests.



Kirsty Grantham

BSc (Hons) Biology

Concentration Changes of Formaldehyde

In this project I wanted to find out if changing the concentration of formalin would have any effect on the elasticity of muscle. If this can be done then potentially this could result in embalming becoming more efficient and cost effective.



Paige Griffiths

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BSc (Hons) Animal Science with Animal Behaviour

Preference of Olfactory Enrichment in Snow Leopards

An investigation will take place to access the preference of olfactory scent's by measuring the interaction time and intervals of three captive snow leopards (*Uncia uncia*) using three scents which include ground cinnamon, sheep extracts, and none scented (controlled scent), which will be impregnated on a knotted rope.



William Hammond

BSc (Hons) Biology

Do Sports Drinks Improve Exertion Levels?

Becoming a sports star? Nowadays we are bombarded with advertisements of sports stars endorsing regular sports drinks claiming that, if we buy and consume these drinks, we too can perform at a higher level. But how much of that is true and how much of that is simply clever marketing?



Thomas Hancock

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BSc (Hons) Biology

Can Plants "Talk" to Each Other?

The ability to communicate effectively over distance is essential to many animals, but what about plants? If plants are capable of communicating, and if we can tell them to induce their defence mechanisms prior to an attack, we could significantly reduce the need for pesticides.



Sian Higgins

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BSc (Hons) Animal Biology and Conservation

Comparative Study of Native Avian Activities

A comparative behavioural study, exploring factors that influence bird activities; temperature variation and weather conditions.



Charlotte Marshall-Calcutt

Charlottemc123@icloud.com

BSc (Hons) Biology with Microbiology

How Clean Are Public Toilets?

Public toilets are used frequently by everyone, but are they being cleaned enough? Swabbing at various times of the day using different public restrooms and comparing male and female toilets can reveal how clean public toilets really are, and if they are harbouring any potentially harmful bacteria.



Laura Morgan

BSc (Hons) Animal Science with Animal Behaviour

How UV Light Effects Growth Rates and Behaviour in Mantids

Gathering data on the effects of ultraviolet light on the growth rates and behaviour of praying mantis. The data will be collected from a total of fifteen mantids exposed to three types of light, to allow a comparison on growth and behaviour.



Rabina Nisar

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BSc (Hons) Human Biology

Antioxidant Effects of *Trachyspermum Ammi* in Human Subjects

Trachyspermum ammi is a tracheophyte and flowering herb, traditionally used for medicinal and culinary purposes. The investigation includes assessing the effects of the herb on lipid peroxidation and total antioxidant activity in human plasma when consumed and chemical analysis of the herb by various assays.



Rebecca Parsons

BSc (Hons) Animal Science with Animal Behaviour

Enrichment for Meerkats the Impact on Behaviour and Foraging

Adding enrichment to the meerkat enclosure and recording any behavioural or foraging changes.



Rose Perry

rose.c.perry@outlook.com

BSc (Hons) Animal Biology and Conservation

Do Dental Treats Reduce the Bacteria on a Canine's Teeth?

80% of domestic dogs will have some sort of dental or oral problem during their lifetime, one way that veterinarians prevent this is the use of dental treats. Testing the amount of bacteria present before and after dental treats may indicate the effectiveness at reducing bacteria on the teeth.



Alexander Piercy

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BSc (Hons) Biology

Does Tempo Have an Effect on an Induced Mood State?

Music therapy is used to help individuals suffering from autism and a variety of neurotic conditions. This study looks into whether manipulating the tempo of a piece of music will have an effect on an induced mood state, in the aim to aid the development of future methods of practice.



Georgia Potter

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BSc (Hons) Human Biology

Probiotics: Can They Improve the Immune System?

Probiotics are advertised everywhere as a means of digestive regulation. However, they could potentially be beneficial to immunity by increasing white blood cell count to provide a more effective defence against pathogens. But is there a difference between natural yoghurt and Activia regarding the immune system?



Thomas Price

BSc (Hons) Animal Biology and Conservation

Startle Reflex

Measuring the response of the skeletal muscles during a startle reflex in response to a "jump scare", both alone and in company.



Sarina Samra

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BSc (Hons) Biology

Are All Carrots Good For You?

A project investigating the best possible conditions to ensure high beta-carotene content is consumed from carrots. Carrots were exposed to different domestic preparation conditions and beta-carotene was extracted and measured.



Archie Scott

archie-scott@hotmail.com

BSc (Hons) Biology

Effect of Elderberry Antioxidants on Intestinal Microbiota

A project into the effects of cooked elderberries, with regards to polyphenol antioxidants, on the intestinal microbiota, using *Salmonella enteritidis* as the pathogen, and *Lactobacillus acidophilus* as the commensal



Melissa Seabridge

melissa.seabridge1994@gmail.com

BSc (Hons) Animal Science with Animal Behaviour

Effects of Enrichment on Enclosure Usage of Fennec Foxes

Fennec foxes are becoming popular in zoos so it's vital that we learn about them to ensure high standards of care. The aim was to increase activity levels and enclosure usage. The enclosure was divided into zones, the foxes were observed with and without enrichment and their zone location at each minute was recorded.



William Shepherd
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BSc (Hons) Biology

Flagellin as a Virulence Factor in *Vibrio parahaemolyticus*

Project aims to use mRNA expression of the flagellin protein in *Vibrio parahaemolyticus* to assess whether the protein is regulated during the gastrointestinal pathogenesis of the organism. The flagellin, which comprises the bacterial flagella, is detected by TLR5 receptor in multicellular organisms including humans.



Paul Sheridan
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BSc (Hons) Animal Biology and Conservation

Room to Breed: Green Walls as Habitat for Urban Birds

Populations of urban bird species have experienced unprecedented declines since the 1980s. Such significant falls appear to be due, in part, to the loss of breeding habitat. Green infrastructure is increasingly used to offset urbanisation but can it also offer nesting habitat to our displaced urban bird species?



Elizabeth Stoddard
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BSc (Hons) Animal Biology and Conservation

Avian Dietary Behaviour

Malnutrition in wild birds can be life threatening. A balanced diet is essential for the success of biological processes such as avian moult and bodily insulation. Close monitoring of birds during feeding can help determine which factors have the heaviest influence upon food selection at different times of the year.



Amie Wilton
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BSc (Hons) Human Biology

Can Vitamin D Increase the Effects of Sunscreen Protection?

Education about the damage which is caused by exposure to the sun has increased, yet cases of skin cancers continue to rise. This research set out to establish whether the addition of calcitriol, a vitamin D metabolite, and sunscreen can be more effective at protecting cells from the damage caused by UV light.



George Wood

BSc (Hons) Animal Science with Animal Behaviour

The Effect of Termites on Browser Feeding Site Selection

Through the completion of my study I wish to ascertain whether the presence or absence of *termitaria* within thickets in a savannah habitat has an effect on the utilisation by browsing species of herbivore on the aforementioned thickets. My project will be undertaken at Mankwe Wildlife Reserve in South Africa.



Shaker Mohammed Abbas

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BSc (Hons) Biomedical Science

Relationship between Quality of Sleep and Skin Sensitivity

This research project is made to investigate what causes the increased skin heat sensitivity in patients with different amount of sleep. The factors being looked at is the amount of REM sleep, during what time the subjects woke up during sleep, and if factors such as gender and BMI play a part.



Mohammed Abdullah

mohammed-abdullah@hotmail.co.uk

BSc (Hons) Biomedical Science

Postprandial Glycaemic Effects of Blueberries

Inhibition of α -glucosidase activity is considered an effective means of controlling diabetes. Blueberries have shown to possess high levels of inhibitory activities. This investigation will examine variation in α -glucosidase inhibition, phenolic and anthocyanin levels in participants consuming blueberries.



Baker Ahmad

BSc (Hons) Biomedical Science

Effect of Bee Venom on Small Cell Lung and Breast Cancer Cells

Bee Venom (Melittin) contains strong peptide that possesses the ability of destroying cancer cell membranes. This could allow new opportunity for treatment of chemoresistant cancer. This study evaluated cytotoxic and pro-apoptotic cell viability by testing effects of bee venom on small cell lung cancer and human breast cancer cells.



Abubakar Ahmed

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BSc (Hons) Biomedical Science

The Effect of Sodium Saccharin on Gut Microbiota

Saccharin is an artificial sweetener that has been used for more than a century as alternative for sugar. It is a non-nutritive sweetener agent and part of the sulphonamide group and so may cause allergic reactions in some people. Some preliminary studies in mice suggested saccharin may have antimicrobial activity.



Laura Ainsworth

BSc (Hons) Biomedical Science

The Antimicrobial Effect of Garlic on *Enterococcus Faecalis*

This project is looking into whether or not garlic has antimicrobial effects when it is added to minced meat that has been inoculated with a specific known bacteria. If this is true then it could be used to help with preserving meat products as well as be used to help combat antibiotic resistance.



Shaukat Ali

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BSc (Hons) Biomedical Science

Could Statins Assist in Breast Cancer Growth?

Statins are widely used medical drugs that decrease cholesterol biosynthesis within the liver. Recent studies state that statins are capable of disrupting cellular activity through numerous biochemical pathways. This study explored the *in-vitro* effect of statins on Breast Cancer Cells using modern analytical techniques.



Syed Ali

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BSc (Hons) Biomedical Science

The Effects of Antibiotics on Cancer Cells

This project investigates the effects of bactericidal antibiotic classes on MCF-7 cancer cells. Previous research suggests that these antibiotics can cause mitochondrial dysfunction in a normal cell line (MCF10A) which causes the over production of reactive oxygen species resulting in oxidative damage to the cell.



Azimah Asif

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BSc (Hons) Biomedical Science

The Glycaemic Effects of Mixed Berry Polyphenols on Humans

Research suggests that mixed berries are beneficial for human health. This study investigates the postprandial glycaemic effects of mixed berry polyphenols. Conduction of chemical analysis on mixed berries aids to highlight these benefits. It is hypothesised that berries will decrease postprandial blood glucose levels.



Stephen Avorkliyah

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BSc (Hons) Biomedical Science

Ascorbic Acid and Selenium, Good or Bad?

This project examines the effects of ascorbic acid and selenium on plants in regards to increasing plant growth and yield, reducing the damages caused by free radical produced by ozone depletion. Selenium and ascorbic acid are chemicals (antioxidants) which reduce the production of free radicals and the effects of them.



Zieshan Aziz Mirza

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BSc (Hons) Biomedical Science

Ancient Practices Used to Inhibit Oral Pathogens

In ancient times the use of a natural toothbrush was a way of maintaining oral hygiene. The natural toothbrush derives from extracts of the plant known as Salvadora Persica. It is mainly effective against dental caries, plaque and gum disease causing bacteria which will be further examined with current practices.



Alice Broadbelt

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BSc (Hons) Biomedical Science

Ginger: The New Natural Antibiotic?

Antibiotic resistance is rapidly becoming the greatest threat to human health. With a pre-antibiotic era on the horizon it is imperative that alternatives are discovered. *Zingiber officinale* otherwise known as ginger has well documented medicinal properties, but could it be an undiscovered natural antibiotic?



Claire Evans

BSc (Hons) Biomedical Science

The Effect Vitamin D has on Breast Cancer

The aim of my project is to identify if vitamin D inhibits proliferation of breast cancer, using MCF-7 cell line. This will take place by extracting exosomes from MCF-7 cells with the added calcitriol, and compare the proliferation of exosomes against the amount of exosomes taken from MCF-7 cells without calcitriol.



Arrendeeep Gill

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BSc (Hons) Biomedical Science

Manuka Honey - Combatting Antimicrobial Resistance

Bacterial resistance is increasing at a rate that can't be controlled by the development of new drugs. Consequently, traditional remedies such as Manuka honey are being investigated. This project is designed to observe the efficacy of this and its active ingredient, methylglyoxal, on various skin microbiota.



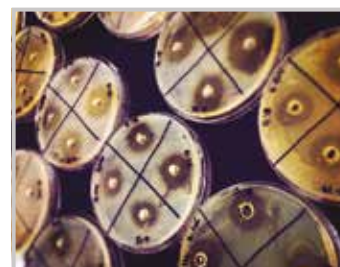
Thomas Hooper

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BSc (Hons) Biomedical Science

Naringenin - A Future within Cancer Treatment?

Small Cell Lung Cancer (SCLC) accounts for 10-15% of all lung cancers and can metastasise quickly throughout the body, before detection by clinicians. This project aims to assess whether the application of Naringenin with traditional SCLC chemotherapy aids the slowing or eradication of cell growth; aiding and enhancing future treatment methods.



Elcin Karyal

BSc (Hons) Biomedical Science

Antimicrobial Effects of Vanillin and Ortho-Vanillin

Antibiotics have eradicated many infectious diseases, however due to pathogenic adaptations, antibiotic resistance is increasing. This project investigates the antimicrobial effects of Vanillin and Ortho-Vanillin in Gram positive and negative bacteria. It aims to observe potential bactericidal/bacteriostatic properties.



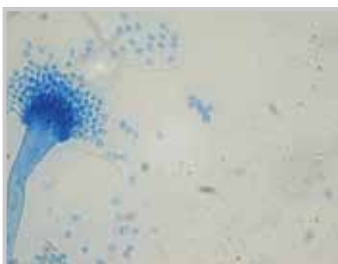
Jansher Khan

j.khan1@live.co.uk

BSc (Hons) Biomedical Science

Can Essential Oils Change Future of Antimicrobial Treatment?

Many essential oils are widely known for many health benefits and aromatic fragrances however testing for sensitivity and reduction of growth of certain in vitro microbial infections could help change the face of treating microbial infections and preventing the use of antibiotic drugs and resistance.



Sharon Lees

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BSc (Hons) Biomedical Science

A Comparison of Airborne Microorganisms Utilising the MB2

A comparison of airborne bacteria and fungi collected from laboratory R214 and its surrounding rooms utilising the Microbio MB2 sampler. What could be anticipated in a regularly used microbiology laboratory and what effect on dispersal and density does a Fabric Air Dispersal System have?



Hadjer Meraihia

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BSc (Hons) Biomedical Science

The Effects of *Spirulina* and C-Phycocyanin on Cancer Cells

Spirulina platensis is a photosynthetic bacteria and supplements of spirulina displays anti-cancer effects in cell culture models. The aim of this study was to test the anti-proliferative and apoptotic effects of spirulina extract against human CaCo-2/TC7 cancer and murine L929 non-cancer cell lines.



Nii Mills

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BSc (Hons) Biomedical Science

Vegetable Extracts the New Face of Cancer Treatment?

The use of natural phenol compounds referred to as flavonoids and their varying antiproliferative effects is an increasingly explored area of cell culture. The comparable effects of Luteolin and Kaempferol were examined on TC7 cells alongside a molecular investigation with anti-apoptotic protein regulation.



Denis Murimi

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BSc (Hons) Biomedical Science

Does Vitamin C Reduce the Effects of Oxidative Stress

Adults aged 18-25 have a higher percentage of smokers compared to adults 25+ and are at high risk to diseases caused by free radicals produced by the cigarette which lead to oxidative stress. I will be testing antioxidant from the vitamin C supplements and the effects on the free radicals between smokers and non-smokers.



Lori Newman

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BSc (Hons) Biomedical Science

Exosomes and their Association to Acquired Drug Resistance

Exosomes were thought to be a mechanism in removing cellular waste. Recent research suggests an involvement in cellular signalling and the transportation of cellular components to distant cells. This investigation seeks to establish if exosomes are contributing to acquired drug resistance in the L929 cell line.



Philomena Osei-Kwame

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BSc (Hons) Biomedical Science

The Effects of Vitamin K Supplementation on Blood Clotting

Vitamin K is a fat soluble vitamin that is essential for human health, it is not a single vitamin but a group compound that relates the structure and function in human nutrition. This is a stimulating nutritional based project that investigates the association between Vitamin K and blood coagulation.



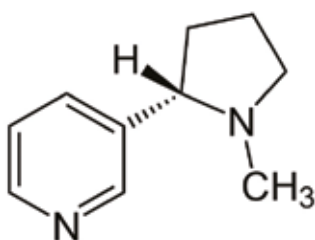
Kristian Pace

krispace1983@hotmail.co.uk

BSc (Hons) Biomedical Science

Does Soup Affect the Immune System?

The aim of my project is to establish if a link between super foods and on the immune system, establishing if Tomato soup and Chicken soup can affect our immune system in a positive manner, or if a positive mood set aids our body's in producing a strong immune system.

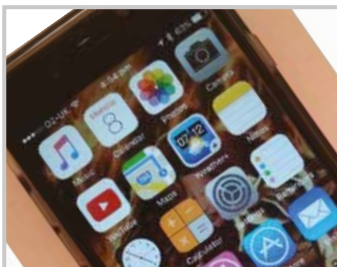


Sameet Plahe

BSc (Hons) Biomedical Science

The Effect of Nicotine on Fat Cells

A project measuring the effect of different concentrations of nicotine on SBGS cells (human fat cells), to determine whether weight loss can be achieved through the use of nicotine, and to find the concentration needed.



Tracy Quate

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<https://www.linkedin.com/in/tracy-quate-4a65a7a8>

BSc (Hons) Biomedical Science

Are You Addicted to Your Smartphone?

Some psychological experiments have found that smartphone users develop a dependency on their device and separation can result in feelings of stress and anxiety. This study analyses different physiological stress markers following a period of separation to further validate these claims.



Charlotte Simm

charlotte_simm@hotmail.com
BSc (Hons) Biomedical Science

The Efficiency of Disinfectant against Bacterial Growth

During food preparation cross-contamination can often occur therefore, disinfection is required to reduce the risk of foodborne illnesses. However, factors such as: contact time, temperature and disinfectant type may affect their efficiency to eradicate microorganisms and these variables were investigated.



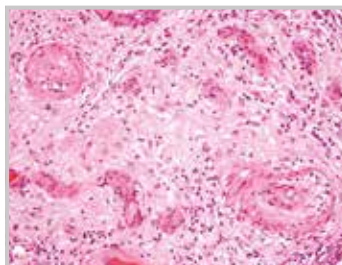
Rebecca Simpson

rebter3@gmail.com
<https://uk.linkedin.com/in/rebecca-simpson-028b8ba4>

BSc (Hons) Biomedical Science

Salivary Cortisol: A Little Spit of Anxiety

In an ever changing world stress has become second nature. But how do we distinguish between the degrees of stress and why is it a part of our biological make up? By measuring significant changes in cortisol production it could provide an indication of the impact of a real life stressor on human biology.

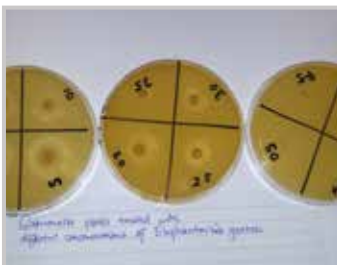


Gurikbal Singh

g.singh00@hotmail.co.uk
BSc (Hons) Forensic Biology

The Analysis of Current and New Semen Detection Methods

The analysis and comparison of current tests used to detect semen that can be found at a crime scene ranging from presumptive tests to confirmatory tests, against possible new presumptive tests that can be used to detect semen to the same level of accuracy.



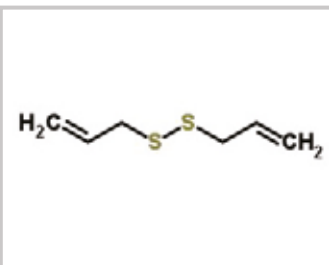
Tawanda Sithole

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BSc (Hons) Biomedical Science

Is Ndorani Effective?

Investigating the medicinal effects of *Eephontorrzia Goertze* (Ndorani) which is a traditional plant based medicine used mainly in Africa to treat several ailments including diarrhoea.

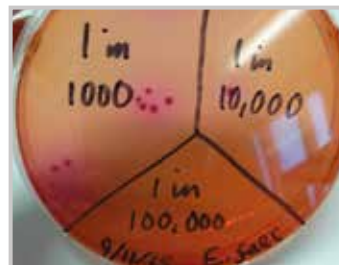


Jonathon Stanway

BSc (Hons) Biomedical Science

The Potential Inhibition of CYP2C19 by Diallyl Disulphide

Numerous herbs contain many phytochemicals that may inhibit cytochrome P450 enzymes, as most clinical drugs are metabolised by cytochrome enzymes this effect on cytochrome activity may reduce the pharmacokinetics of drugs. Diallyl disulphide was investigated to determine its potential inhibitory effects on CYP2C19.



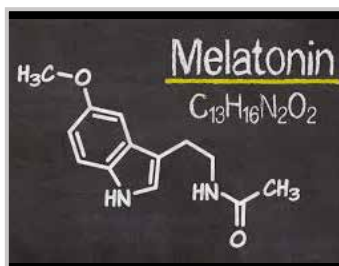
Jodie-Anne Swatton

jalswatton@gmail.com

BSc (Hons) Biomedical Science

The Effect of a Probiotic Organism on Gut Microbiota

The use of probiotic drinks as a way of speeding up recovery time from certain disorders has been observed in previous research. This study aims to identify whether an in vitro effect of an organism found in probiotic drinks is present against microorganisms commonly found in the human gut.



Jennifer Uttams

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BSc (Hons) Human Biology

Do Saliva Melatonin Levels Increase with Tryptophan Foods?

The aim of my project is to investigate whether foods containing tryptophan can increase melatonin levels in saliva as well as alter mood states before and after sleep.



Crisma Visnual

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BSc (Hons) Biomedical Science

The Effect of Pre-Workout Supplements on Blood Plasma

Consumption of pre-workout supplements is increasing, their use is seen as essential for active trainees, strength athletes and bodybuilders to enhance performance. Their use may increase nitric oxide levels and decrease malondialdehyde levels in the blood, over time the metabolites may be detrimental to the users.

Engineering and Design

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Mustafa Al Salem
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BEng (Hons) Electrical Engineering

Wireless Electricity Transfer to Charge Batteries

Researching different wireless techniques. Deciding a suitable technique to produce a low power (5W) wireless charger. Designing and building of the prototype.



Aderotimi Ayoola

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<https://uk.linkedin.com/in/tim-ayoola-20758899>

BEng (Hons) Mechanical Engineering

Energy Management

Saving energy is one of the most effective ways of reducing carbon-dioxide footprint, this can be achieved by analysing the cost rate of consumption of natural gas and electricity. This also produces ways for energy reduction, investments, payback periods, and opportunities for renewable energy resources.



Muhammad Bilal
mbilal94@outlook.com

BEng (Hons) Electrical Engineering

Effect of Thermal Annealing on the Efficiency of Solar Cells

This project is based on the production of Organic solar cells (OSCs). It consists of the phenomena called photovoltaic (PV), where light is directly converted into electrical energy. In this project, new methods to enhance the efficiency of OSC devices by applying simple and quick manufacturing procedures are studied.

MANEA MOTORS
smart, energy efficient motors

Timothy Chigbo

TimothyChigbo@hotmail.com
www.TimothyChigbo.com

BSc (Hons) Product Design Technology

Energy Efficient City Transportation using Modern Technology

This project aims to implement and introduce a new energy efficient transportation system which goes under the company name: Manea Motors. To develop a new system with the incorporation of Modern Technology, the design process of this project was developed through extensive market research and concept ideation.



James Connolly

james.connolly15@btinternet.com

BEng (Hons) Mechanical Engineering

Erosion of Small Bore Pipework in Critical Maritime Systems

A study into the erosion of small bore pipework in the sewage system of a Royal Navy submarine and how the cleaning process to clear Struvite build-up affects the integrity of the pipework.



Mariusz Dudek

pc3cpu@gmail.com
www.DIYisFun.com

BEng (Hons) Electronic Engineering

Multi-Zone Active Central Heating Controller

The Heating Controller is a wireless feedback based system capable of active controlling of the temperature within the rooms or buildings which are heated with use of a single boiler. The energy, cost, and environmental impact can be reduced by implementing this system in both domestic and commercial CH systems.



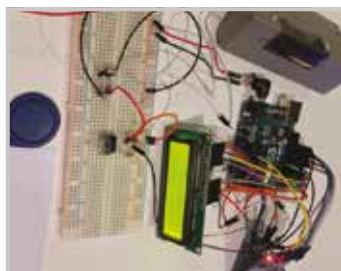
William Dukes

mrbeardy87@gmail.com

BEng (Hons) Electronic Engineering

A Smart Case for Smart Warehousing

A microprocessor based system which measures a change of weight within a packing case and interprets that change as the addition or removal of pre-programmed items. Items' numbers can be displayed on the LCD panel and are updated as numbers change. Data is transmitted via a ZigBee link to update the central database.



Kewin Dzwonowski
kewindz@hotmail.co.uk

BEng (Hons) Electronic Engineering

Secure Door Lock

Keyless secure door lock entrance system. The system uses RFID (radio frequency identification) it is a wireless technology of electromagnetic fields used to identify the ID tag. Tags or cards have stored code which is identified by the receiver to release the lock. Hardware used in this project is Arduino.

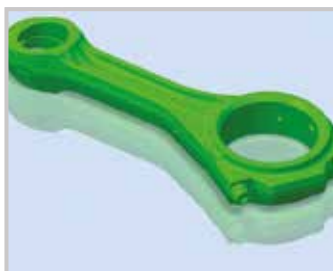


Rhys Edwards
rhysoed@hotmail.co.uk

BEng (Hons) Electrical Engineering

Micro-Energy Harvesting

Energy harvesting is beneficial due to the generation of power with little effort, limited by the timing in which this ambient energy is available. Using a range of EH technologies simultaneously in one system can negate this limitation due to the different technologies operating irrespective of each other.



Daniel Godwin

BEng (Hons) Mechanical Engineering

Reverse Engineering and 3D Scanning Technologies

Owning Computer Aided Design (CAD) models of components is vital for engineering companies. 3D scanning technologies allow quick 'reverse engineering' of components to create CAD models. An evaluation of current technologies was carried out to provide a solution to a local engineering company.



Richard Grantham

richard.b.grantham@gmail.com

BEng (Hons) Mechatronics Engineering

Traffic Flow Energy Harvester

With the focus of electrical energy generation moving from fossil fuel based to renewable sources an interesting research area of energy harvesting has opened up. The design developed during this project is an energy harvester which converts the kinetic energy of moving vehicles into a useful form of electrical energy.



David Grocott

BEng (Hons) Electronic Engineering

DoorSmart - A Wireless Home Security System

Non-contact security has become the standard in today's modern world. With keyless entry & engine start for our cars and wrist fobs for our offices, why do we still fumble for keys to enter our home? DoorSmart is a contactless, easily installed, system for almost any domestic door.

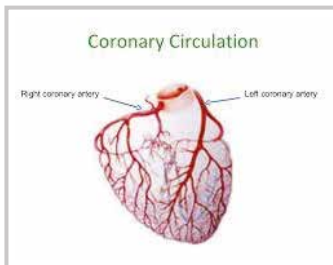


Panashe Kanyuchi
panashe_24@hotmail.co.uk

BEng (Hons) Electrical Engineering

Vapour Annealing of an Organic Solar Cell

To fabricate a P3HT-PCBM polymer-fullerene organic solar cell and obtain its electrical characteristics and power conversion efficiency. Attempt to improve power conversion efficiency of the fabricated solar cell via solvent vapour annealing.

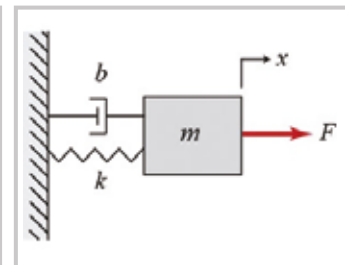


Ann Mariya Sabu

BEng (Hons) Mechanical Engineering

Numerical Modelling of Human Coronary Circulation

The main investigation in this project is numerical modelling of human coronary circulation, this particular subject research has been carried out and has been formed and investigated further due to the countenance problems faced with the active or former ways of observations of flow conditions in coronary circulation.



Kurt Reuben

reuben.kurt@gmail.com

BEng (Hons) Mechanical Engineering

Active Tuned Mass Damping

Vibrations are prevalent everywhere in the modern age. Ignoring them or not dealing with them correctly can have catastrophic results. This project is aimed at controlling vibrations where some parameters may not be constant.



Stephen Serlenga

svs@stephenserlenga.com
www.stephenserlenga.com

BEng (Hons) Electronic Engineering

Wireless LED Message Display

LED message displays provide an effective method of conveying information. An embedded design of a display which can be fully controlled from a Bluetooth enabled computer (using custom software) was designed and built. The product is ideal for information or advertising purposes in difficult to reach areas.



Davina Yalley

dyalley95@gmail.com
<http://dyalley95.wix.com/digitalportfolio>

BSc (Hons) Product Design Technology

Create a Workstation that ensures a Productive Workspace

Distraction is a problem in this current age. *Hoffman, E.H. and Hoffman, C. (2006)* say that technology has divided our attention. This project will be exploring common distractions in places of study and work to identify the effects on the productivity of the work environment and discover a way to solve this issue.

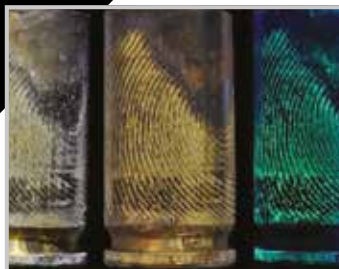
Forensic Policing and Criminal Investigation

STOKE-ON-TRENT

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Andrew Crisford is a
Computing graduate from
Staffordshire University.



Maria Acierno

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**BSc (Hons) Forensic
Investigation**

Latent Fingermarks on Fired and Unfired Cartridge Cases

To determine the most effective techniques available to analyse and develop latent fingermarks using a range of different powders and chemicals on fired and unfired cartridge cases. Then using a 360° camera device to capture any ridge detail that can then be used for further analysis.



Gina Banga

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BSc (Hons) Forensic Science

Cognitive Bias and the Error Associated with Blood Spatter

A study conducted on whether extraneous information affects the interpretation of blood spatter patterns at a mock crime scene.



Lauren Bates

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**BSc (Hons) Forensic
Investigation**

Effects of DNA Recovery Techniques on Subsequent Fingermarks

Fingerprints and DNA are the most encountered types of evidence at crime scenes, however it's questioned whether both types can be recovered from a single source. This research attempts to establish whether it is possible for finger marks to be recovered after DNA recovery and whether identification is possible.



Laura Bird

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**BSc (Hons) Forensic
Investigation**

Weather and Climate Effects on the Decomposition Process

An investigation into the factors that can affect the decomposition process. This study considers temperature amongst other factors to determine the rate of decay of pork samples. Mass loss is analysed for all samples from varied conditions to conclude what weather environment affects the decomposition rate the most.



Dominic Bloomfield

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BSc (Hons) Forensic Science

Petrol, Octane Boosters and Arson Investigation

Identity of petrol brands and octane boosters and determining if adding octane Boosters to petrol can mask the identity during an arson investigation.



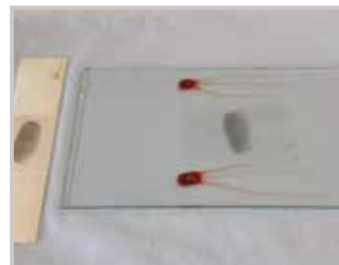
Victoria Boyde

vickiboyde@yahoo.co.uk

**BSc (Hons) Policing and
Criminal Investigation**

Does Restorative Justice have a Viable Place in Policing?

Restorative Justice (RJ) is a practice that allows the victims and offenders of a crime to meet and communicate directly about how the crime has affected each other. By bringing both parties together, RJ aims to help repair harm and rehabilitate both sides of those affected in the offence in a controlled environment.



Joseph Burgess

**BSc (Hons) Forensic
Investigation**

Recovering Fingermarks and Blood Simultaneously

Deciding on whether to dust for fingermarks or to swab for blood can be challenging when faced with a surface at a crime scene as the techniques will destroy the other evidence type. With this new proposed technique both can be performed simultaneously with no effect to the quality of the results.



Kurstie Burgess

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BSc (Hons) Forensic Biology

Ignitable Liquid Recovery from Hands

An evaluation of the recovery methods utilised for the retrieval of ignitable liquid from suspects' hands; a comparison of well-established methods with variations to those previously under-utilised for this field.



Josie Bush

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BSc (Hons) Policing and Criminal Investigation

Policing Schools and the Reduction of Anti-Social Behaviour

A secondary school's reputation can be damaged by the frequency of anti-social behaviour (ASB); could this be diminished by a Police Officer walking the corridors? Safer School Partnerships and School Liaison Officers are schemes that are enforced, but implemented with differing intensity fluctuating the impact on ASB.



Louis Caen

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BSc (Hons) Forensic Investigation

Investigation of Pressure on 2D Footwear Marks

The purpose of this project is to see if pressure has any effect on a footwear impression. This will be achieved by deformation of the sole. Deformation can turn characteristics into recordable data to be statistically analysed to find any correlations of weight increments.



Leanne Campbell

BSc (Hons) Forensic Investigation

Voice Recordings as Evidence

This project looks at the possibility of identifying a single voice within a group recording of known and unknown voices and the evidential value of a voice recording in a criminal investigation and in the court room.



Grace Catling

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BSc (Hons) Forensic Investigation

Testing Cadaver Dogs' Capabilities in Realistic Settings

Dogs are used by police forces when searching for human remains and missing people. There is a lack of literature focusing on uncontrollable, naturally occurring scents that could be found in search environments. This study aims to determine if any of these non-target samples will distract a dog from the target sample.



Rae Chase

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BSc (Hons) Forensic Science

Terminal Ballistics of Round Nosed Air Rifle Pellets

The behaviour of air rifle pellets when projected at different materials at various angles was studied. Lower firing angles caused lower ricochet angles with less deflection. As angles increased so did the ricochet and deviation. The materials' densities and textures also affected the ricochets of the pellets.

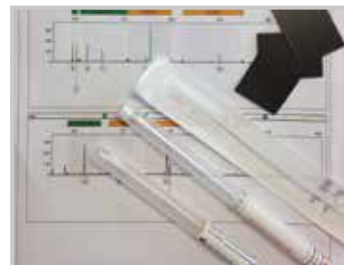


Allumdeep Chatha

BSc (Hons) Forensic Investigation

The Analysis of Gunshot Residue on Select Pieces of Clothing

The aim of my project was to identify if there was a difference in the type of gunshot residue left behind from different ammunition on select pieces of clothing. These gunshot residues were analysed in order to identify whether they could tell me anything about the type of firearm used.



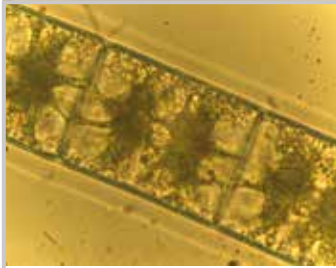
Olivia Churchill

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BSc (Hons) Forensic Science

Recovering Touch DNA from a Handled Surface

Four swab materials were used to recover touch DNA samples from textured plastic. They were extracted and amplified, then analysed using different profiling systems. Results were compared to determine the most effective swab material for recovering touch DNA, and the effect of increasing sensitivity on profile quality.



Victoria Cooke

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BSc (Hons) Forensic Investigation

Analysis of Phytoplankton in a Forensic Context

An understanding of phytoplankton in drowning cases has been poorly researched in forensic pathology. Phytoplankton may offer vital information in regards to drowning diagnoses and the time since death in both freshwater and salt water environments.



Thomas Dexter

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BSc (Hons) Forensic Science

How Effective is Lumicyano When used in Situ?

Lumicyano is a new one step cyanoacrylate fuming process for fingerprint development. It has been shown to work successfully when used in a fuming cabinet, but no tests have been carried out to see how useful it is when used in situ with the SUPERfume. This project tests Lumicyano's effectiveness using both methods.



Rebecca Evans

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BSc (Hons) Forensic Investigation

Commingled and Disarticulated Remains in the Court Room

Commingling of remains occurs when there is more than one set of remains in a grave, and remains can become disarticulated through various means. This study looks at the value of disarticulated and commingled remains in the context of criminal investigations, focusing on the Queensville assemblage.



Joshua Forde

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BSc (Hons) Forensic Science

The Analysis of Nitrates and Nitrites in a Cured Meat Sample

To analyse cured meat (specifically bacon) using ion chromatography and flame photometry and investigate into the levels of nitrate and nitrite salts used in regards to the required acceptable daily amount.



David Freeman

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BSc (Hons) Forensic Investigation

The Detection of Trace Amounts of Cocaine on World Banknotes

34 banknotes from 15 different countries around the world were collected and tested for the presence of cocaine using GCMS. 7 of the 34 notes from 3 different countries tested positive.



Thomas Fugill

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BSc (Hons) Forensic Science

A Comparison of Existing Heroin Analysis Techniques with XRD

Illicit heroin is often cut with other substances to increase profits. Gas chromatography and high performance liquid chromatography are frequently used techniques for separating and identifying components in seized samples. But are these techniques the most suitable? Or would another method be more efficient?



Lewis Green

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BSc (Hons) Forensic Science

Burned Bone - Time, Temperature, Thickness and Crystallinity

A range of results was generated showing how features of bone (thickness and crystallinity) differ before and after incineration at three different temperatures and for three different times. Links between the various factors were investigated. Potential for original bone thickness determination was considered.



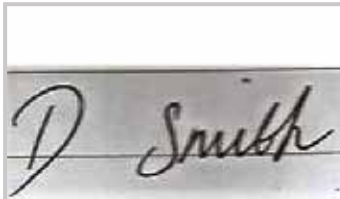
Charlotte Grove

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BSc (Hons) Forensic Science

Persistence of Petrol Found on Clothing

As part of a fire case, petrol is a common accelerant used by the perpetrator to start a fire. Therefore the potential for the accelerant to be deposited on the clothing of the perpetrator is reasonably high. The presence of petrol on cotton clothing as part of an investigation has been explored.



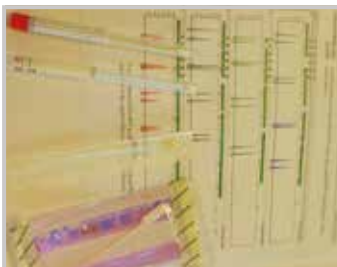
Ruth Hall

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BSc (Hons) Forensic Investigation

Analysis of Signature Forgery using Measurements and Optical

Examination of signature forgery using optical examination of the slant, width and height of the questioned signature.



Sophie Hartless

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BSc (Hons) Forensic Science

Touch DNA: Forensic Tool or Trauma?

In forensic investigations touch DNA is often found on handled items. This has the potential to indicate links between suspects and scenes of crime but has a relatively low success rate. Further research into the recovery of touch DNA may yield a higher success rate and increase its value forensically.



Matthew Holland

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BSc (Hons) Forensic Investigation

A Comparison of Driver Eye Movement between Different Ages

My experiment was prepared using video clips from a hazard perception test DVD. Participants of different ages watched a series of videos containing a range of hazards and driving conditions. While watching the video, the Eye Tracking Software was used to find where the drivers were looking at pre-set interest points.



Mohammed Ishola

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BSc (Hons) Forensic Science

Using Wet Digestion and Dry Ashing to Detect Trace Elements

The research looks at comparing wet digestion and dry ashing techniques to determine concentration levels of trace elements in several ground coffee samples by graphite and flame atomic absorption spectroscopy. This will be carried out by examining six elements which are: manganese, zinc, copper, nickel, iron and lead.



Rebecca Latham

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BSc (Hons) Forensic Biology

The Persistence of Trace DNA on Buried Firearms

Trace DNA is a valuable evidence type found on firearms recovered from crime scenes. However, various factors can prevent the successful recovery and amplification of trace DNA. The optimal time to recover DNA and the best recovery methods to produce STR profiles from a handled firearm were investigated.



Arina Matvejenko

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BSc (Hons) Forensic Investigation

Effect of Air Weapon Characteristics on Terminal Ballistics

Crime scene reconstructions through test firing are critical for investigating firearms incidents. Research typically focuses on handguns, but this research focuses on air weapons due to their higher rate of discharge in the UK, cause of criminal damage and injuries in animal related crime.



Benjamin McShane

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BSc (Hons) Policing and Criminal Investigation

Terrorist and Organised Crime Interplay

The project involves the examination of the interplay between terrorist and organised crime groups across the globe. The activities of the two impact on the UK greatly, therefore it is important to understand how they do it in order to create legislation and prevention tactics against it. This project looks to do exactly that.



Joseph Moss

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BSc (Hons) Forensic Science

Extraction and Detection of 2,4-Dinitrotoluene from Wood

At the site of an explosion, samples of the surrounding debris are taken for laboratory analysis to detect whether a bomb was involved and, if so, the chemicals used within the device itself. This project was to investigate whether the varying weather conditions had an effect on the recovery of these residual chemicals.



Rebecca O'Donnell

BSc (Hons) Forensic Investigation

Comparison of Semen Quantity and Quality over Eight Days

Looking at the correlation of semen collected from the high vaginal cavities and knickers over an eight day period.



Matthew Onions

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BSc (Hons) Forensic Investigation

Recovering Footwear Impressions from Different Surfaces

The sole of the shoe had been damaged for realistic wear on the impression. The water was added at different levels and the impressions were recovered by dental stone casting. The impressions made in sand show better when the sand is dry, compared to the impressions in soil that showed better when the soil was moist.



Christopher Parkes

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BSc (Hons) Policing and Criminal Investigation

The Relationship Shared Between the Media and the Police

This research will determine whether there are sufficient safeguards in place to ensure that the Police Force's relationship with the Media is both effective and ethical, when dealing with major crime investigations and other major crime incidents.



Lewis Parsons

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BSc (Hons) Forensic Biology

How Swabbing Solutions Affects DNA Recovery

Three different swabbing solutions will be compared to distilled water which is commonly used by CSI as a swabbing solution. The percentage increase or decrease will be calculated for the quantity of DNA recovered and extracted from nylon and cotton swabs.



Robin Parsons

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BSc (Hons) Forensic Science

Efficiency of DNA Recovery from Latent Fingerprints

It has been documented that DNA can be recovered from fingermarks. Being able to recover both evidence types from a single source could greatly influence an investigation. DNA from latent fingerprints was recovered using three different methods on five different surfaces. The quantity and quality of DNA was evaluated.



Katie Peppitt

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BSc (Hons) Forensic Investigation

Utilising Deformation for Determining Collision Speeds

Crush damage measurements are commonly used to determine pre collision velocities with the relationship between deformation and impact velocity well researched. This project simulated low speed collisions, exploring the measurement methods recommended to see if a relationship could be observed between these variables.



Tayla Pomroy

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BSc (Hons) Forensic Investigation

Quantitative Differentiation of Bloodstains

Subjectivity of blood pattern evidence often reduces the evidential value of it in a forensic investigation. One of the key criticisms is the lack of quantifiable data to support interpretations. This research attempts to quantitatively differentiate between contact and cast-off stains on fabric.



Helen Porter

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BSc (Hons) Forensic Investigation

Forensic Practices in the Quantification of Microplastics

Plastic waste is increasing in our environment, but we don't really know how much is out there. I'm looking at how the use of forensic quantification methods will aid in the quantification of microplastics from sediment in our waterways.



Anthony Richards

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BSc (Hons) Policing and Criminal Investigation

Police Privatisation: A Helping Hand or a Trojan Horse?

The biggest issue facing Police Forces is not how to prevent crime, but how to do the job with less money. Private company contracts within the Police Service have increased exponentially in recent years, with austerity cuts the leading cause. Is privatisation the solution, or is there something looming on the horizon?



Jessica Robertson

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BSc (Hons) Forensic Science

Non-Invasive Techniques Used to Locate Burials

Non-invasive techniques have been shown to be a useful technique in archaeology to locate buried features. This project focuses on the island of Alderney and with information from archival research and case studies of non-invasive techniques, suggests a methodology for searching for possible graves on the island.



Abbeygail Standen

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BSc (Hons) Forensic Investigation

Mobile Technology to Aid in Missing Person's Investigation

This project evaluated the way police investigate missing people to see if mobile technology could contribute to this by proposing a new software application for police use. The outcomes of the research enabled the development of a prototype app incorporating table top research and technological data such as GPS.



Amy Stelfox

BSc (Hons) Policing and Criminal Investigation

The Effectiveness of UK Policy & Law on Tackling Youth Gangs

This project looks at current UK legislation, guidance and policy around youth gangs and critically discusses how it's effective on tackling youth gangs. It explores several aspects of youth gangs such as definition, gang injunctions and case studies and the role of the police in a multi-agency approach to tackling youth gangs.



Vicki Stuart

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BSc (Hons) Forensic Investigation

Post Mortem Changes to the Aqueous & Vitreous Humour

Various methods have previously been applied into examining one of the most difficult challenges faced by forensic experts when establishing a time of death. It's these changes that possibly offer a more accurate time of death and one change of interest is potassium concentration within the eye.



Tiffany Taylor

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BSc (Hons) Forensic Investigation

A Study into the Effects of BMI on Breathalyser Test Results

This is a study into whether Body Mass Index affects a person's breathalyser test result, over other factors such as gender, in regards to national drink-drive legislation and guidelines.



Stacey Thompson

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BSc (Hons) Forensic Investigation

Can the Effects of Caffeine on Blowfly Larvae Effect PMI?

This research is an attempt to determine whether the effect of the most commonly used drug (caffeine) at different concentrations can have any effect on the time estimation of death made by entomologists. The aim is to compare the monitored growth and time of larvae life cycle with caffeine to that of the controls.



Sophie Tipton

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BSc (Hons) Forensic Investigation

Alternative Methods to 3D Laser Scanning of Evidence

Evaluating the efficiency of 3D photo-stitching software to produce reconstructions of physical evidence as an alternative to 3D laser scanning.



Chloe Waine

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BSc (Hons) Forensic Investigation

The Expert Eye

Testing the observational skills of Scene of Crime Officers when analysing a disaster scene, using an eye tracking device to help identify and devise training strategies for inexperienced personnel.



Amy Walley

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BSc (Hons) Policing and Criminal Investigation

Dealing with Police Corruption

Policing in the United Kingdom is riddled with historic cases of corrupt practice and improper behaviour. However, corruption is on the increase and public inquiries often highlight police failings. A single definition and method for dealing with corruption is vital for preventing further damage to police morality.



Laura Western

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BSc (Hons) Forensic Investigation

Blunt Force Trauma vs Taphonomic Processes

To determine whether taphonomic processes have the ability to conceal/imitate the fractures caused by blunt force trauma (BFT) and if there are any individual characteristics to differentiate between trauma fractures and decomposition fractures.



Ryan Whitman

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BSc (Hons) Forensic Investigation

A Precise Method for Headspace GC in Undergraduate Studies

In undergraduate studies it's important to have both a precise and accurate method which is easy to replicate. This project looks at an already existing method for headspace gas chromatography, used in Forensic Science at Staffordshire University; and attempts to enhance both the accuracy and precision of the method.



Alicia Workman

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BSc (Hons) Forensic Investigation

Comparative Evaluation of Powder for Fingerprint Development

Fingerprints are one of the most important pieces of forensic evidence and have been used for over 100 years. Each individual's fingerprints are unique, meaning no two people have the same area of friction ridge skin. Therefore, making sure the most effective development technique is used is of vital importance.



Sophie Worn

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BSc (Hons) Forensic Investigation

Study towards the Distribution and Redistribution of Fibres

The examination of fibre evidence from a crime scene has the potential to be of vital importance in a criminal investigation. This study aims to look into how this process can be made more efficient with an automated fibre counter when looking in to the persistence of fibres on different fabrics.



Jordan Wright

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BSc (Hons) Forensic Science

Comparison of Freeware Vs Licensed Software

Can Freeware Software be as effective as licensed software for the purpose of processing crime scene panoramic images for the court room?

Geography and Environmental Science

STOKE-ON-TRENT



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Foundation.**

Andrew Crisford is a
Computing graduate from
Staffordshire University.



Grace Clarke

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BSc (Hons) Geography

**Take a Rain Check: Are
Weather Forecasts Always
Right?**

It's forecast beautiful sunshine tomorrow so you make plans in advance but in typical English fashion, the heavens open and plans are ruined. Comparing Met Office weather forecast and my own weather station data set up at Planters Garden Centre, I was able to see how accurate the forecast was over a six month period.



Lauren Critchley

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BA (Hons) Geography

**Cultural Regeneration
and Art: A Case Study of
Liverpool**

Ever since the Capital of Culture nomination in 2003, Liverpool has designated culture as one of the main economic and tourism drivers of the city. Using both questionnaires and interviews the effects of both cultural regeneration and the arts have been analysed.



Richard Detton

richarddetton95@hotmail.co.uk

**BSc (Hons) Geography with
Mountain Leadership**

**Conservation, Management
and Tourism in Snowdonia**

A study of the impact and education of tourists on the conservation and management of Snowdonia National Park. Questionnaires, environmental surveys and interviews produced data suggesting that tourists visiting the national park needed more education on what conservation and management entails.



Ruth Howson

ruthhowson@hotmail.co.uk

**BSc (Hons) Animal Science
with Animal Behaviour**

**Can Herbivore Water
Source Preference Manage
Distribution?**

Studies have shown large African herbivores to have a preferred water source. With Rhino and Antelope under threat from poaching for horn and bush meat, their chance of survival is compromised. Could the calculated placement of artificial water sources aid a safer spatial distribution management technique?



Edward Jones

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**BSc (Hons) Geography with
Mountain Leadership**

**Wilderness? Snowdon's
Landscape Quality &
Naturalness**

This project aims to establish a method of monitoring the impact paths have on the naturalness of landscapes. Through subjective and objective analysis, it is hoped to find correspondence between naturalness, accessibility and attractiveness. This project also looks at what people expect from a wilderness experience.



Grace Kennedy

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BSc (Hons) Geography

**Water Quality Analysis
of the Fowlea Brook,
Stoke-on-Trent**

This is an assessment of the water quality of a small, highly managed, urban water-way, running through a variety of land-use types in an ex-industrial city. The analysis also takes into consideration the flora and fauna within and around the brook and how water quality may affect their presence and growth.



Abbie Mackintosh

abbie.ajm@hotmail.co.uk

**BSc (Hons) Animal Science
with Animal Behaviour**

**Could Fire Management
Practices Benefit the Safety
of Rhino?**

Anthropogenic threats have decimated the White Rhinoceros throughout Africa and with their survival today mostly influenced by anti-poaching efforts, proposes the question whether White Rhinoceros' movement and spatial distribution can be manipulated using the common management tool, prescribed burning?



Jonathan Newbould

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BSc (Hons) Geography with Mountain Leadership

Ghana and Tourism: Backwater to Tourist 'Hotspot'

Ghana is an exciting, dynamic destination, yet so far has failed to attract a significant number of tourists. In reviewing the current status of Ghana's tourism industry there is much potential. This study identifies where significant improvements need to be made to remove the obstacles to future growth.



Shraddha Sharma

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BSc (Hons) Environment and Sustainability

How Businesses Can Encourage Employees to Travel Sustainably

Initial research suggests that the main problem encountered by the staff of a leading company in Stoke-on-Trent was limited parking spaces. Expected outcomes are: potential for setting up sustainable ways of commuting to work; and setting up company-wide schemes such as car share and cycle to work schemes.

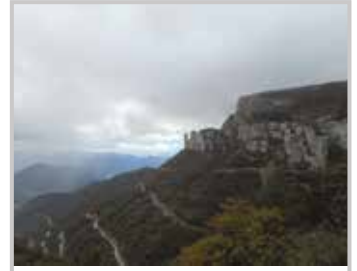


Helen Tromans

BA (Hons) Geography

Is Brass Banding a Thing of the Past?

Since their inception, Brass Band, and the Brass Banding movement was considered to be the most typically British form of music and entertainment. This movement is now, however, experiencing a decline unlike any previously experienced; is this decline signalling the beginning of the end for this British tradition?



Kate Wayland

kate.wayland24@gmail.com

BSc (Hons) Geography

Do the Public Appreciate Geodiverse Landscapes?

This project attempts to assess the general public's appreciation of geodiverse landscapes in relation to their socio-economic status and proximity to these landscapes. It also attempts to evaluate the importance of education in conserving and appreciating the geodiversity of the UK.



Levi-Jade Worsfold

levi.jade21@gmail.com

BSc (Hons) Geography

Volcano Tourism - the Tourist Experience and Hazard Awareness

Volcano tourism is part of a wider branch of geotourism, a way in which to appreciate nature through tourism. Due to the volcanic nature, they are appealing locations for a wide range of tourists to visit. However, not all tourists may be aware of all the hazards involved and thus may not prepare effectively.

Mathematics and Applied Statistics

STOKE-ON-TRENT



Daniel Cartlidge
dan_cartlidge@live.co.uk

BSc (Hons) Mathematics and Statistics

A Mathematical Model of a Zombie Virus

A mathematical model will be created using maths software that demonstrates the spreading of a zombie virus during a zombie apocalypse after an outbreak. It will use assumptions based on modern zombie movies, and the conditions under which the survival of the human race is possible will be found if they exist.



Kelly Ford

BSc (Hons) Mathematics and Statistics

Young People's Attitude to Fat and Sugar in Food & Drink

A report by Public Health England for 2013/14 showed that 19.1% of children aged 10-11 were obese and a further 14.4% were overweight. This project aims to investigate young people's attitude and awareness towards the sugar and fat content in everyday foods and drinks.



Ryan Mitchell
mitch-311@hotmail.co.uk

BSc (Hons) Mathematics and Statistics

Factors Affecting Away Attendances in the Football League

Many statistical models have been created previously modelling football attendances, however no significant papers were found to model solely away attendance. This is one reason, as well as the possibility of multiple altering variables, that the category of away attendance was chosen, as opposed to overall attendance.

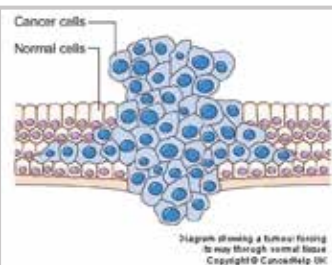


Nikolina Papatryfonos

BSc (Hons) Mathematics and Statistics

Are You Satisfied with Your Social Life as a Student?

The reason for choosing this project is the desire to know whether the students of Staffordshire University are satisfied with their social experience and, if not, what changes they would like to see. The project involves a questionnaire completed by students from different awards and different levels.



Sonaben Patel
sonapatel125@gmail.com

BSc (Hons) Mathematics and Statistics

Model Muddle of Tumour Growth

To research and model existing models of cancer growth. Finding data too and creating a model to see how the model can show the growth of it in one dimension and in space.



John Renshall
john.renshall93@gmail.com

BSc (Hons) Mathematics and Statistics

Premier League Forecasting: Modelling to Predict Football

The basis of this project is to create a model or formula, which will be able to predict results of football matches with an appropriate accuracy level and is reproducible. This data will be used to create a final league table from the forecasts.

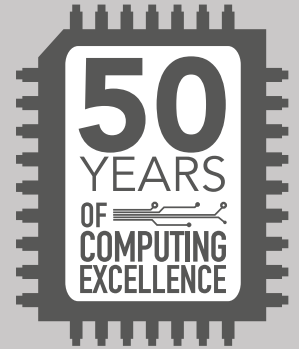


Nathan Timmis
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BSc (Hons) Mathematics and Statistics

Forecasting the Grossing of an Upcoming Movie

To create a model that can predict the grossing of an upcoming movie using multiple variables found through research. A questionnaire and interview has been completed too for the research and statistical analysis to be used to create the model. The model should be able to predict movie grossings and award success.



FIFTY GLORIOUS YEARS

This year the School of Computing celebrates 50 Years of Computing Excellence (1965-2015) – a milestone in its 50 years' history of being at the forefront of computing education. Over the last 50 years we have directly influenced the evolution of computing as a technical discipline and industry, helping to create an international workforce of highly-skilled computing professionals who have applied their knowledge and skills to yield transformative solutions to solve society's problems.

Our students have taken up employment within an extraordinary array of industrial, corporate and research environments. Many employers return year after year, seeking both placement students and graduates - in some cases seeing the School as their first port of call. Employers typically say that our students have impressive theoretical and practical knowledge and quickly become valuable and capable members of their teams, making contributions of the highest professional standards.

The School of Computing offers courses that continue to meet needs of the sector and emerging markets in the digital economy.

Subjects that can be studied include Games Programming, Software Engineering, Mobile Systems, Computer Networks, Cybersecurity, Embedded Systems, Web Programming, Multimedia and Interactive Systems, Information Systems, and Business Information Technology. Latest developments include courses in Cloud Computing, Big Data, and the Internet of Things.

The School also continues to invest in industry-leading technologies and resources, and the principle of practical scholarship remains central to its mission. Students are encouraged to innovate, develop employability skills, and engage in work placements and entrepreneurship so that they emerge as practitioners ready for a career in the digital sector. The excellent work exhibited by our students at GradEx is testament to this.

The School of Computing has a great heritage and we look forward to strengthening and building on our success as we move forward – continuing to pioneer in the world of computing.

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Wasim Ahmed

wasim1608@hotmail.com

BSc (Hons) Computing Science

Gesture Based control of a Robotic Arm

This project aims to evaluate the effectiveness of the MYO Gesture Armband for controlling a robotic arm. The electronic components of the arm form a CANbus network and so an application is created to connect both the interface with the gesture armband and to connect the network.



Thomas Allen

generallee220@hotmail.co.uk

BSc (Hons) Computing Science

Can EPoS terminals Become Easier to Use?

I have worked with Electronic Point of Sale systems over many years in different types of businesses. From these experiences I have kept a running list of features that would improve the usability of these systems in terms of speed, efficiency and how these solutions can be easier for the user to understand.



Alexander Andrews

contact@lawdie.co.uk

BSc (Hons) Computer Networks and Security

The Impact of Encryption in Relation to Speed and Usability

Encryption is a growing field, but does the strength of the encryption impact on how fast a network can perform? With the growing trend of working remotely are some VPN clients easier than others.



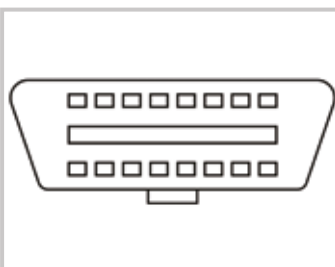
James Brian

jbrian30221@yahoo.co.uk

BSc (Hons) Computing Science

Vocal Warm Up Mobile Application

This project will focus on creating a mobile application which will allow singers to accurately and efficiently ensure that they properly warm up their voices before they begin to sing and receive useful information on their performance.



David Brown

BSc (Hons) Computer Science

An iOS Application to Enhance Motoring Experience

An iOS App that directly connects to your car to improve your driving experience. Get rewarded for driving milestones and improve driving skills using OBD-II and your phone.



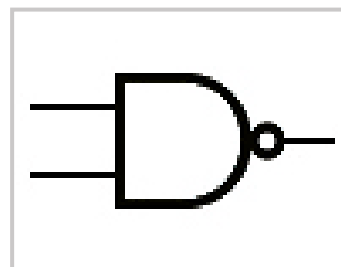
Matthew Clarke

mattclarke9292@gmail.com

BSc (Hons) Computing Science

Nutrition Reminder Application for Endurance Athletes

The goal of this project is the development of a mobile nutrition reminder application for endurance athletes, which updates the athlete when it is necessary to take nutrition and fluids for optimum performance during an endurance activity.



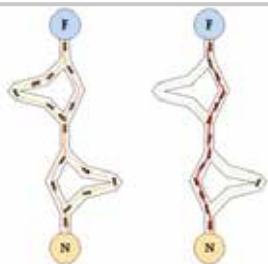
Michael Curry

michaeldcurry1@gmail.com

BSc (Hons) Computer Science

Hardware Modelling/ Simulation Library

A software library that allows users to model and simulate hardware in a programmatic manner.



Jack Dunning
jackdunning23@gmail.com

BSc (Hons) Computer Science

Dynamic Vehicle Routing in a Large Scale Environment

A software simulation for dynamic vehicle routing in large scale environments, using algorithms from Ant Colony Optimisation. The simulation is dynamic such that changes in the environment, such as traffic or road closures, can be adapted to efficiently.



Matthew Felton
matt.felton@hotmail.co.uk

BSc (Hons) Computer Science

Mobile Application to Control a "Robot Car" over Wi-Fi

Attempting to control a car/robot remotely using a mobile application, looking in depth at the signals required to run and receive feedback from the servos while achieving control of the micro controller attached to the car over a WiFi network.



Samuel Griffiths
sam.griffiths94@gmail.com

BSc (Hons) Computing Science

An IOS Travel Journal Application

An IOS application that allows the user to visually map, create journal entries and share their travel journeys across the world.



Salia Hajilashgari
salia.lashgari@gmail.com

BSc (Hons) Software Engineering

Horticultural Monitoring Software

Horticultural Monitoring Software allows gardeners and horticultural enthusiasts to record and monitor their crops precisely and in depth by using Raspberry Pi and Java. HMS also includes an in-depth plant deficiency problem solver and information about range of plants.



Jack Henson
jackhenson@mail.com

BSc (Hons) Computing Science

Investigating QoS Mechanisms over Wireless Networks

Investigating QoS Mechanisms over Wireless Networks with Real-Time Generated Traffic.



Darren Hodgkinson
dabhodgkinson@googlemail.com

BSc (Hons) Computer Science

Production Line Interface

A production line control system programmed using Labview, gathering and reacting to analogue data from a variety of sensors placed around the system.



Lukasz Holcman
lukasz.holcman@icloud.com

BSc (Hons) Software Engineering

Warehouse Management System

This is the software for managing distribution centre tasks such as putting goods away, replenishment, order picking etc. This report covers problem analysis, design and implementation of a prototype to manage the workload in an efficient and intelligent manner.



Aleksander Kepa
okepa@yahoo.co.uk

BSc (Hons) Computer Science

Camera Based Home Security System

Software for a camera based home security system has been implemented to accommodate domestic animals. The system is able to differentiate between an intruder and a domestic animal. No alert is sent if it detects an animal. Abnormal events are logged in a database for use by the police or insurance companies.



Andrew Korczak

akorczak7@gmail.com

**BSc (Hons) Multiplayer
Online Games Programming**

Panoramic Video Stream

This project delves into the realms of network programming and explores ways of effective streaming of video. The produced artefact allows for the streaming of panoramic video across the network and ability to view it on a head mounted display to produce the effect of immersion.



Rebecca Kuhn

rebecca-kuhn@outlook.com

**BSc (Hons) Computing
Science**

Overcoming Creative Block

A web application with the aim of overcoming creative block.



Thomas Lacey

thomas.lacey@hotmail.co.uk

**BSc (Hons) Software
Engineering**

Indoor Positioning: How can Supermarkets Benefit?

Supermarkets are forever pushing the boundaries of their customer relationship marketing strategies. Using location data provided by an Indoor positioning system could unlock a host of new information that once was not known about a customer, pushing the boundaries of supermarket marketing even further.



Lewis Luong

lewis.k.luong@gmail.com

**BEng (Hons) Computer
Science**

Collaborative Robotics in the Electronic Industry

This project's purpose is to look at options for the small to medium businesses in the electronics industry to use robotics to collaborate with disabled workers. Using robot arm(s) to provide a solution and a safer environment for disabled workers in the electronic manufacturing industry.



Gregory Mayes

gregmayes@gmail.com

**BSc (Hons) Business
Information Technology**

Low-cost Soil Data Logging and Monitoring System

A customisable, fully-fledged data logging and monitoring system comprised of inexpensive hardware. The primary focus of the system is to measure soil information, but it can be readily adapted for other purposes. The system utilises a mobile application to provide alerting and remote monitoring capabilities.



Daniel Millard

dmillard91@hotmail.co.uk

**BSc (Hons) Software
Engineering**

A Movie Review Summarization System

Summarizing multiple movie reviews for end user access via a mobile device. Reviews will be summarized using natural language processing techniques.



Jorge Millares-Bobet

**BSc (Hons) Computer
Science**

Personalised Aggregator for Online News Articles

In order to keep up with the vast amount of news being produced worldwide, this project attempts to combine many news sources to produce a curated page with user defined parameter displayed using a web site and an optional newsletter.



Laura Mizzi

lmizzi@mail.com

BSc (Hons) Digital Forensics

Machine Learning For Microsoft Azure Forensic Examination

A Microsoft Azure Machine Learning framework to provide a foundation for forensic analysis. The end result is designed to be a plug-in-and-play artefact with Python scripts which can be easily installed onto existing Azure spaces with low cost and impact to the end user.



Waleed Mohammed

Waleed78612@gmail.com
www.facebook.com/DapprApps

BEng (Hons) Computing Science

Asian Wedding Planning and Management Application

A universal mobile application for iOS which will aid couples and families in planning and managing their Asian weddings, with an easy to use interface and a well suited beautiful design.



Leslie Nock

leslie_nock@hotmail.co.uk

BSc (Hons) Computer Science

Quadcopter Cockpit Controller with Object Avoidance

With the increasing popularity of drones comes a large spectrum of health and safety risks. Drones are used in a magnitude of scenarios ranging from commercial photography to military assistance. By combining object avoidance and decision theory can drones continue to thrive and contribute to society?



Luke O'Neill

lukeoneill2502@hotmail.co.uk

BSc (Hons) Business Information Technology

Asset Management System for Educational Environments

This project is an Asset Management System aimed at Educational Environments such as schools or colleges where the whole purpose of the system is to make the task of asset management simpler, more efficient and, as a whole, cheaper by giving IT support staff a strategic advantage when making business decisions.



Richard Owen

BSc (Hons) Software Engineering

Scheduling System that Can Automatically Assign Care Workers

A scheduling system that has the functionality to automatically assign a care worker. The main scenario being when a care worker has an absence and their visits need to be covered. The absent visits will be automatically covered.



James Pepper

jamespepper88@googlemail.com
www.james-pepper.co.uk

BSc (Hons) Computing Science

Using Computer Vision for Collision Avoidance in a Vehicle

An investigation and implementation of a collision detection and avoidance system, utilising computer vision, for an autonomous vehicle.



Tom Poczos

t.poczos@gmail.com

BSc (Hons) Software Engineering

Parallel Execution of Biology Inspired Neural Networks

Machine learning technology that is inspired by and therefore mimics the structure and way of operation of the human neocortex, Implemented in a way that it is able to leverage the computing power as provided by modern (i.e. multi-core) CPU architectures.



Harminder Shoker

shokersingh@googlemail.com

BSc (Hons) Business Computing

Village Hotel Leisure Centre Class Booking and Management

The aim for this project is to create a fully functional standalone web application that will enhance the experience for members and staff of this gym, resolving the problems of their current inefficient system and to cut time and cost for the Village Hotel Leisure Centre.



Alakhdeep Singh

alakhdeepsingh90@gmail.com

BSc (Hons) Computing Science

iCoaching: Activity Monitor iOS application

An iOS fitness application which introduces iCoaching as a new way of guidance from coaches who don't live in same place as the student and also collects fitness data.



Luke Styne

lukestyne@hotmail.com
<https://uk.linkedin.com/in/luke-styne-80b2b183>

BSc (Hons) Computing Science

Distance Based Drive Monitoring Mobile Application

Using an Arduino to interpret a laser range finder signal and relay this distance information over Bluetooth to a mobile device to monitor driving performance of the user.



Leon Tang

BSc (Hons) Computer Science

Placement Application Template System

To design a quality web-based CV submission system that provides a central place for university students to display their profiles, and to allow employers to view them for potential recruitment. Making a great placement search engine and also a way for employers to find highly competent candidates for their job offers.



Aaron Tufft

aarontufft@gmail.com

BSc (Hons) Software Engineering

A Graphical POS System that Incorporates E-Receipts

A graphical point of sale system for use in a local supermarket, that improves the current transaction time for customers. The system will also eradicate the need for paper receipts, by incorporating e-receipts.



Samuel Ulewich

SamUlewich@gmail.com

BSc (Hons) Computing Science

Card Game and AI

A complete card game with included AI capable of playing the card game.



Bogdan Vitel

bogdan.vitel@outlook.com
v-tek.org

BEng (Hons) Computer Game Design and Production

Reactive Homes for the 21st Century

Our world is built upon vast amounts of information and data acquisition technologies yet we fail to properly capitalize upon them. At their core, our living spaces have remained stagnant despite significant advances in automation. A system turning this data into meaningful interactions is thus a golden opportunity.



Adam Walker

adam.walker94@hotmail.co.uk

BSc (Hons) Computing Science

Robotic Arm Controller Using CAN Bus and Labview/ vision

This project uses a commonplace mover 6 robot, with communication via CAN bus, with a LabVIEW based vision system so that the robot can interact with its surroundings.



Ashley Walker

BSc (Hons) Computing Science

ESOS - Emergency SOS

ESOS is designed to be a kind of virtual panic button to aid people who may fear their life is in danger, domestic violence victims for instance.



Thomas Walker

thomasjosephwalker@gmail.com

BSc (Hons) Multiplayer Online Games Programming

Peer-to-Peer Redundancy in Multiplayer Online Games

Traditional methods of networking multiplayer games have involved either a client-server or a peer-to-peer topology, each having their own strengths and weaknesses. This project creates a Hybrid method of communication, utilizing new technologies like DHTs, lowering maintenance costs and increasing online stability.

1 st TEAM	
V	Crompton (B)
DATE: Saturday 28 th May	
V	Oldham (A)
DATE: Sunday 29 th May	
1	A. Dwyer (C)
2	R. Carruthers
3	C. Hey
4	L. Brown
5	L. Mason
6	M. Hodson
7	M. Smith



Michael Walters
oscarbarazane@gmail.com

BSc (Hons) Computing Science

Multi-use Team Management System for Varying Sports

A sports team management system with the ability to view and categorise all members of a sports team for their chosen sport via a mobile device.



Stephen Withey
stephen.withey@outlook.com

BSc (Hons) Software Engineering

Management System for Student Records

After much use of similar systems within the Education industry I have decided that these systems, while useful at the time they were created are no longer fit for the purpose that they were created for. That's why I have decided to create a new system using up to date technologies for the modern era.



David Young
dave.y@hotmail.co.uk

BSc (Hons) Software Engineering

Hotel Mobile Helper

A mobile application to assist in streamlining hotel services, assisting them to run more efficiently and provide a better overall guest experience. The application will have features that current hotel applications provide however will also integrate new technology to build in additional features.

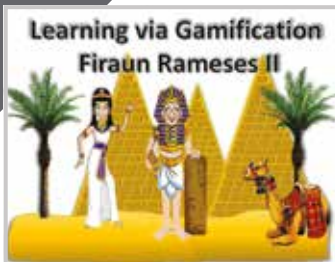
Computing and Information Systems

STAFFORD
15 MAY



Sponsored by the
ACH Crisford Charitable Foundation

Andrew Crisford is a Computing graduate from Staffordshire University.



Aisha Ahmad

aisha_ahmad93@hotmail.co.uk

BSc (Hons) Business Information Technology

Interactive Learning via Gamification

The project involves the development and delivery of interactive learning via gamification for students at primary school, it is targeted at kids using e-learning apps to aid them learn the subject fast. The material is based on history subject and supports students learn the history in an entertaining and amusing way.



Alexander Heath

alex.heath22@gmail.com

BSc (Hons) Network Computing

Quality of Service of VOIP over Security Protocols

To identify if there are links, between different security settings and Quality of Service setups and the effects on the Voice Over Internet Protocol packets and to see what these links are.



Nafeesa Hussain

nafeesa-hussain@hotmail.co.uk

BSc (Hons) Business Information Technology

How can articulate be used to teach UML

To produce and test an artefact to teach UML. To find out what the positive impacts are of the application developed in Articulate on student learning. To produce and test an effective interactive quiz for students so they can see how much they have learnt.



Menaka Kanesan

menaka262010@hotmail.com

BSc (Hons) Business Information Technology

Virtual Learning Environment to Learn New Language

There are a wide variety of online tools to help different language this project involves developing an interactive E-learning application to teach Tamil Language to the children. It gives an opportunity to children learn a new language and it develop their knowledge in Tamil via skill based testing in the application.



Rajveer Kaur

BSc (Hons) Computing Science

An In-Store Retail Navigation System

An app to help customers navigate around any store in the most efficient manner according to your shopping list. It will provide the quickest route through the shop floor you choose to enter without wasting time searching for products. Furthermore it protects customers from habits such as impulse buying.



Corey Keeling

coreykeeling@hotmail.co.uk

BSc (Hons) Network Computing

Management of Apple Devices within an Education Institution

This project demonstrates how open source applications and Apple's native enterprise management features can provide support for Apple devices within an education institution.



Michael Martin

michaelm1687@gmail.com

BSc (Hons) Applied Computing

An Application to Improve Efficiency of MKS Service

A web application to improve the efficiency of the service department at MKS by replacing the current paper-based system and enabling service engineers to focus on repair work.

Placement Year Website

Find your perfect job

Umutsu Sahin

gloriousyoshi_us7@hotmail.com

**BSc (Hons) Computing
Science**

Placement Year Website

My project is to create a placement year website that supports the students when finding jobs in their placement year. The website will allow the students to use a number of CV templates created by the placements team. They will be able to find a job and apply to a different number of jobs.



Daniel Smith

dt.smith94@gmail.com

**BSc (Hons) Computing
Science**

A Placement Journey Management Web Application

A web application for placement students and tutors to use for efficiently managing tutor visits by calculating the optimum journey plans and matching tutors to students based on these.

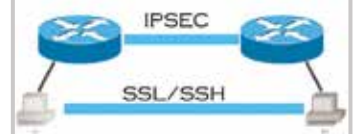


Neil Stringer

**BSc (Hons) Computing
Science**

An Automated, Highly Customisable Academic Report Writer

A system designed to automatically generate easily customisable academic reports based on phrases provided by users and compiled through academic performance in homework assignments.



Robert Williams

bobisbad@protonmail.com

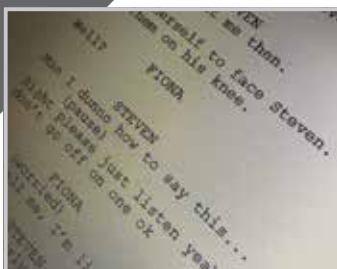
**BSc (Hons) Computer
Networks and Security**

End to End Security

An investigation into VPNs and the impact they have on network traffic and hardware.

Film

STAFFORD



Carla Bithell

carlabithell@hotmail.co.uk

**BSc (Hons) Television
Production Technology**

Investigation into the Commissioning Process for a TV Drama

Commissioning a programme in television is an extremely lengthy process for all independent production companies with an idea for a channel. Research will be undertaken to distinguish between broadcasters requirements and the criteria they follow when choosing a programme idea to commission.



Georgia Boughey-Sandel

georgia.boughey-sandel@hotmail.co.uk

**BSc (Hons) Film Production
Technology**

Investigating Editing Techniques in Promotional Videos

This project will be exploring the use of editing techniques in promotional video content. This will be carried out by looking at a number of promotional videos created for Film/TV programmes, charities and merchandising companies. The techniques used could determine what the audiences reactions are to a certain video.



Nicholas Butler

nicholas.butler@outlook.com

**BSc (Hons) Digital Film and
Post Production Technology**

A Portfolio of Nicholas Butler

Motion graphics has become essential within the film sector, for both creative and corporate work; and its rise in popularity can enhance all aspects of this industry. This is a portfolio of both 3D and 2D motion graphic animations created in both Cinema 4D and Adobe After Effects.



Jack Candlin

jhcandlin@gmail.com
<https://vimeo.com/jackcandlin>

**BSc (Hons) Film Production
Technology**

Sunshine

A practical example of how the narrative of a film can be affected by colour, with a specific focus on the role of colour grading in the post-production phase. The short piece follows the story of both a young girl and an old woman, inter-cutting between the two as they go about their separate days.



Samuel Estall

estall.sam@gmail.com
www.callmeshauna.com

**BSc (Hons) Film Production
Technology**

Catching Clouds

"Boy meets girl.
Girl disappears."
Catching Clouds is a short film, written and directed by Sam Estall, created over the summer of 2015, revolving around Greg, a struggling writer who meets Niamh, a girl with the innate ability to disappear and reappear at will.



Caleb Irving

caleb_james_irving@yahoo.co.uk

**BSc (Hons) Film Production
Technology**

Exploring machinima techniques and their effect on narrative

Machinima (the use of video game software and assets to create animated films) is a new up-and-coming technology. This project aims to research film making techniques and then test them in a machinima short film.



Jack Kelly

jack.kelly15@hotmail.co.uk
[facebook.com/busesfilm](https://www.facebook.com/busesfilm)

**BSc (Hons) Film Production
Technology**

Buses Feature Film

A feature film written and produced by Jack Kelly - 'Buses' is an indie romantic comedy that includes car theft, vinyl shops and poor decision making. Directed by Josh Clarke and Jack Kelly.



Manjit Mattu

brasil613@hotmail.com

BSc (Hons) Film Production Technology

Caste Out Trailer

Trailer of a TV drama telecasting Indians living in the UK facing untouchability and discrimination for being born into a low caste family.



David Morgan

davemorganfilm@gmail.com

BSc (Hons) Television Production Technology

Discretion: A Second Chance

TV drama in the UK is a very competitive industry to enter, and with a big budget drama like 'Discretion' it's even harder. But how would one go about getting 'Discretion' on TV if they were to try and get it commissioned as an international co-production?



Rhys Reynolds

rhys_93reynolds@hotmail.co.uk

BSc (Hons) Games Concept Design

Animated Composites of Portfolio Art Pieces

Animated project showcasing the same showreel I would show to my post-graduate companies.



Nathan Riley

nathan.riley24@yahoo.com

BSc (Hons) Television Production Technology

Technology in Studio Productions

Researching and investigating up and coming technologies used in both studio productions and outside broadcasts and how they have altered and improved over the years with information gained from industry professionals.



Paul Ruddle

pruddle95@gmail.com

BSc (Hons) Film Production Technology

Is 4K production viable for the low budget filmmaker?

4K is a hot topic at the moment and is being picked up by lower budget filmmakers for its flexibility in post and its superior image quality. By doing controlled camera tests and using 4K cameras in professional scenarios, 4K will be tested for its potential for low budget filmmakers.



James Sabin

james.sabin14@gmail.com

BSc (Hons) Digital Film and Post Production Technology

Animation and its Creation in the 21st Century

Investigating Animation and how it's created from 2001 and 2015. Exploring how hardware and software has made advancements. Making animation more accessible to a wider range of people. Also talking to industry professionals to gauge whether animation has become easier and a better standard.



Richard Shepherd

rich.shepherd28@gmail.com

BSc (Hons) Digital Film and Post Production Technology

Editing Techniques of Editing a Film Trailer

The film trailer is a huge part of the film industry. But what goes into the modern film trailer? This project aims to look at the process of researching and editing a film trailer.



Sean Sheridan

seansheridan1@live.ie

BSc (Hons) Film Production Technology

An Investigation into Cinematography in the Horror Genre

In horror filmmaking, cinematography plays an integral role in creating an atmosphere of fear. This visual creative process is used to create emotions of fear on-screen and in the audience viewing it.



Emma Simms

Emma.Simms@outlook.com

BSc (Hons) Film Production Technology

Marketing and distribution strategies

Research and investigation of marketing and distribution techniques used by the film industry. My project will display factors that affect this process such as time, budget and target audience to theoretically design a marketing and distribution plan for the feature film "The Mines".



Stephen Slack

sjas1995@gmail.com

BSc (Hons) Film Production Technology

An Investigation into Matte Painting and 3D Motion Graphics

This project is an exercise in marrying a low fidelity aesthetic with visual effects in order to emulate the visual style of science fiction directors such as Neill Blomkamp and Gareth Edwards. My aim is to create a short film that depicts a dystopian future through its visual design.



Henry Stoker

harrystoker10@googlemail.com

BSc (Hons) Film Production Technology

The Editing of Catching Clouds

"Boy meets girl. Girl disappears." Catching Clouds is a short film, written and directed by Sam Estall, and edited by Henry Stoker. Edited over the winter of 2015 - 2016, revolving around Greg, a struggling writer who meets Niamh, a girl with the innate ability to disappear and reappear at will.



Oliver White

www.oliverjwhite.co.uk

BSc (Hons) Digital Film and Post Production Technology

The Leadership Race 2016

A look at the production of a 'Live Results' show. Announcing the results of the Students' Union's new Full Time Officer Team.



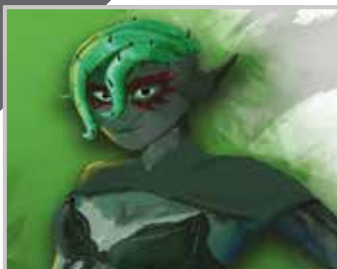
Robert Young

robyoung261@gmail.com

BSc (Hons) Television Production Technology

Online Documentaries: The Emerging Phenomenon

An intricate exploration into how documentaries have been successful in reaching audiences online, particularly people aged 18-34. This investigation predominantly analyses production techniques and distribution methods, with a corresponding Final Year Project filmed in association with charities.



Holly Andrews

hollyandrewsart@gmail.com
http://hollyandrews.eu

BSc (Hons) Games Concept Design

Fashion Design within Concept Art

Looking into how fashion can have an effect on a character's look or the game from which it derives.



Kirsty Bowden

kirstybowdenconcepts@gmail.com

BSc (Hons) Games Concept Design

Character Stylisation

Exploring different aesthetic styles used within popular video games, with focus on character conceiving and modelling.



Jake Boyton

atboyton@gmail.com
https://jakeyab.carbonmade.com

BSc (Hons) Games Concept Design

The Impact of Armour Design in Games and Related Media

Armour has been an important part of human history for centuries, from the Greek Heroes to the medieval Kings of Europe, images of knights clad in armour are a massive part of our own history and folklore. It is also a major part of our fictional science fiction and fantasy stories, television shows and video games.



Ellis Carr

ellis23@hotmail.co.uk
https://elliscarr.wordpress.com

BSc (Hons) Digital Film and 3D Animation Technology

Architectural Visualisation

A series of photo-realistic renders of an exterior architectural scene.



Owen Foster

new.o@hotmail.com
http://owenfoster.co.uk

BSc (Hons) Games Concept Design

Characters in a visual narrative - What makes design matter?

First impressions can tell a lot about a person, in fact, just one glance at somebody and our brains have already made a broad assumption of their personality. This psychological phenomenon can be used effectively to create dynamic and interesting characters that will be instantly memorable to your audience.



Matthew Gwilliam

mdg-95@hotmail.com

BSc (Hons) CGI and Digital Effects

Architectural Visualisation Showcase

Showcase of various interior and exterior Architectural Visualisation renders using 3DS Max and V-ray.



Lukas Jurco

lukas.jurco.353@gmail.com
jurcoart.blogspot.com

BSc (Hons) Games Concept Design

Aeos: The Battle of Odium

My project focuses on two enemy factions, the Warfen and the Empire. Each faction has chosen their best champions to fight in this decisive battle to settle the age old blood debt. The project focuses on two sets of fantasy character concept designs, aimed for MOBA or turn-based strategy games.



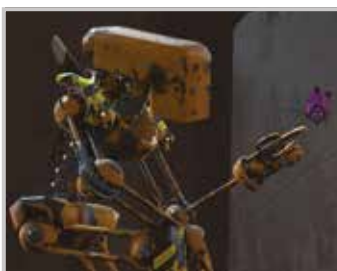
Jack Kelly

jack-kelly95@hotmail.com

BSc (Hons) Digital Film and 3D Animation Technology

Photo realistic environments

A portfolio of environment renders to a photo realistic standard.



Michael Ledsham

mledsham94@gmail.com
www.mledshamart.portfoliobox.net

BSc (Hons) Games Concept Design

The Journey's End

A motion comic and various artwork created by Michael Ledsham. The motion comic follows a party of adventurers on their final quest, as they face a monster unlike any before.



Rain Mason

rain.mason@hotmail.co.uk
http://rainmason.carbonmade.com

BSc (Hons) Games Concept Design

Reconstruction of Historical Artifacts and Architecture

Combining CGI, photogrammetry and digital art with sound historical research, the damaged artifacts (even faces of our past) can be restored. This collection shows just how effective these processes can be, including items found with the Staffordshire Hoard and facial reconstructions from local archaeological digs.



Samuel Matthews

Maslaw53@hotmail.com
https://www.artstation.com/artist/sams_art

BSc (Hons) Games Concept Design

Epic Art

In my project I was greatly inspired by the epic and how to capture this through my painting. I was motivated by the likes of Fenghua Zhong and how he and many others achieve this sense of epic scale. I really would like to captivate my audience through the beauty of these stories retold through visual communication.



Hermunpreet Mehat

hm-95@hotmail.co.uk
http://hm-958.wix.com/hermunm

BSc (Hons) Digital Film and 3D Animation Technology

Photorealistic Rendering of 3D Visualisation

The project's aim is to create a photo-realistic render of a modern apartment. Using 3ds Max, Vray, Marvelous Designer and Speed Tree to achieve this. Every model, texture and material will be based on real world references.



Thomas Morrell

m012267b@student.staffs.ac.uk

BSc (Hons) CGI and Digital Effects

VR VFX Post Production

A visual effects piece created for VR including footage and CGI elements, composited in a stereo workflow.



David Robertson

davidjohnrob732@gmail.com
davidjohnrobertson.co.uk

BSc (Hons) CGI and Digital Effects

Period Architectural Visualisation

An architectural visualisation project based around Frank Lloyd Wright's landmark building, Fallingwater. The aim is to show the building, and its surroundings, during each of the year's four seasons.



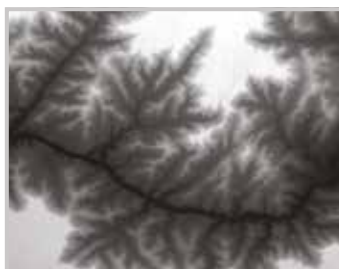
Kieran Rowlinson

k.j.rowlinson@gmail.com
offroadhero.portfoliobox.io

BSc (Hons) Games Concept Design

The Art of the Second Skin

To design a powered exoskeleton for use in games and film.



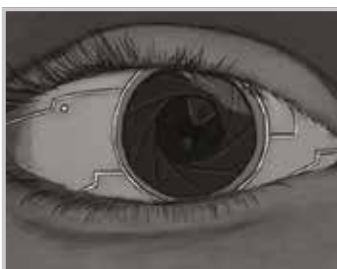
Kevin Safirstein

kevin_safirstein_vfx@yahoo.co.uk
<http://kevinsafirstein.wix.com/kevinsafirsteininvfx>

BSc (Hons) CGI and Digital Effects

3D CG environment

A 3D CG environment created using a digital elevation model and software such as Google Earth, Global Mapper, Maya, Photoshop, Zbrush, Mari and Nuke. This project was chosen because of its extensive workflow allowing to conduct tasks such as terrain creation, lighting, texturing, rendering and composing.



Christopher Saunders

chrs.saunders@gmail.com

BSc (Hons) Games Concept Design

Futuristic Prosthetic and Cybernetic Designs

Concepts and 3D designs of futuristic prosthetics and cybernetics; designed to be technologically functional and fashionable, for civilians, military and industry.



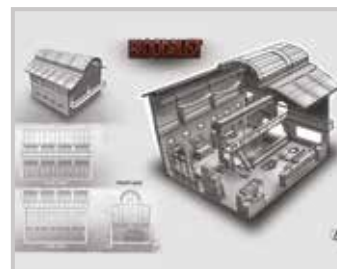
Mikaela Tsounaka

tsounakamikaella@yahoo.com
<http://tsounakamikaella.wix.com/mikaelatsounaka>

BSc (Hons) Digital Film and 3D Animation Technology

Aseek 3D animation

Creation of a whole Chinese-style animation, character models, environments, rigging, lighting, texturing, dynamics and animating.



Lee Whitaker

LeeWhitakerconcept@gmail.com

BSc (Hons) Games Concept Design

Believing in Fantasy

To create fictional fantasy and tell the story of this world through painting as well as writing.



Sam Wood

samwood127@gmail.com

BSc (Hons) CGI and Digital Effects

Green Screen

I will create a video with green screen using Green Screen footage composited using Adobe After Effects.



Dominic Woods

BSc (Hons) Games Concept Design

Digital Sculpting: Creating Characters

Digital sculpting has become an embedded industry practice within the creative industries. The use of digital sculpting software within the game, film and television industry has created some of the iconic characters that we know today. But how are these characters created?



Elijah Wright

elijah_1994@hotmail.co.uk
<http://elijah-wright.com>

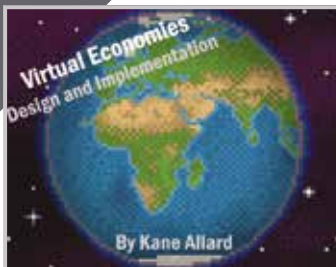
BSc (Hons) CGI and Digital Effects

Investigation into Rendering Optimisation for Visual Effects

An Investigation into rendering optimisation for visual effects to better understand the rendering process and better optimise it for high demanding projects such as simulation and dynamics for use in visual effects.

Games Design and Production

STAFFORD



Kane Allard

kane_a@hotmail.co.uk

BEng (Hons) Computer Gameplay Design and Production

Virtual Economies, Design and Implementation

An in-depth look into the world of Virtual Economies, covering their origins, evolution, gamification and their implementation into MMOs. The project will also analyse each chosen major MMO's economic structure and its design process.



Andrew Barlow

andrew.r.barlow@btopenworld.com
https://andrewbarlow.carbonmade.com

BSc (Hons) Games Concept Design

Fear as a Medium

The plan for this project is to create a series of images that portray a well-known fairy-tale, *Red Riding Hood*, as a horror. These images will illustrate key scenes in the narrative, presenting the main characters and will act as supporting materials for a project pitch or concept art for future development.



Charlie Barnes

charlie.s.barnes@gmail.com
charliesbarnes.co.uk

BSc (Hons) Computer Games Design and Programming

Blobz

A top-down shooter game where the player must gamble their own points in order to gain more. Characters, ammo, health and support are all made out of the same material. Whoever controls the supply, controls the game.



Nicole Bates

nic.lol@hotmail.co.uk
www.theartofnicolebates.co.uk

BSc (Hons) Games Concept Design

Personality in Character Design

Characters can be perceived as one of the most important aspects of a story. They maintain interest and help audiences connect with the story. But can their design help show their personality and in turn help the audience connect more?



Arran Blomfield

arranblomfield@googlemail.com
www.arranblomfield.com

MEng (Hons) Computer Games Design and Programming

Gameplay Prototypes in ue4 and steam VR

I have created several prototypes using steam VR and the HTC Vive system in UE4 Blueprint



Mitchell Brooks

mitchell.w.t.brooks@gmail.com
http://mitchellbrooks.co.uk

BSc (Hons) Computer Games Design and Programming

Networked Card Game Framework

A card game framework built within Unity using C# that has the ability to be played over a network or locally. The game, built within the framework has two players fight each other using large armies, while using ability and spell cards to change the course of the battle.



James Challenor

JC@Seraphim3D.com
www.Seraphim3D.com

BEng (Hons) Computer Games Design

Heavenguard Dragon

The creation of two character pieces, a Dragon and a Rider, developed for use within Unreal Engine 4.



Jack Clews

jacklouie@hotmail.co.uk
www.jackclews.co.uk

BSc (Hons) Computer Games Design and Programming

Creating a Mobile Game that uses GPS

A multiplayer mobile game created using Unity. Users set up game lobbies with their own rules such as locations, time and game type. They then compete against each other by capturing geographical locations to earn points. The player with the most points at the end of that session wins.



Anthony Cook

anthony.cook5922@gmail.com

BEng (Hons) Computer Gameplay Design and Production

Stealth AI

An attempt at creating an artificial intelligence that is not only able to hide from multiple players but is also able to sneak up on them without anyone noticing.



Andrew Cracknell

andrew.w.c@btinternet.com
https://andrewcracknell.carbonmade.com

BEng (Hons) Computer Gameplay Design and Production

A User Interface within Unreal Engine 4's UMG

Creating a User Interface system within Unreal Engine 4 that is clean and efficient.



Christopher Daniels

Chris-Daniels89@hotmail.co.uk

BEng (Hons) Computer Games Design

VR and its effectiveness in military training

Attestation of the effectiveness of Virtual Reality Hardware in conjunction with military simulation software when used in a replication of a military close-quarter battle training test exercise.



Luke Dodds

Lukedodds94@gmail.com
www.lukedodds.co.uk

BEng (Hons) Computer Gameplay Design and Production

Designing, Developing and Directing *Fall of Civilization*

This project focuses on the development and production of an indie game from start to finish. *Fall of Civilization* is a post-apocalyptic turn-based strategy game, made in UE4 and is going to be released on steam greenlight (PC).



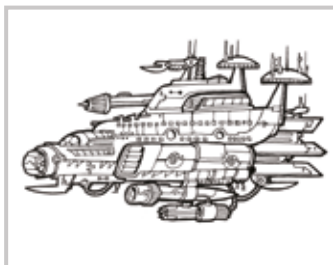
Mathew Gill

mathew.gill@hotmail.co.uk

BEng (Hons) Computer Gameplay Design and Production

Outlaws and Outcasts

The creation of an industry standard Tabletop Role-playing game set in a high fantasy 'Wild West' styled world.



Roman Hadley

romanhadley@btinternet.com

BEng (Hons) Computer Gameplay Design and Production

Space Combat Strategy Board Game

This project consists of a turn-based science fiction strategy board game. For the project there is also a written design document, detailing the inspiration I have drawn from science fiction novels, military philosophy and modern video games and how these effect the outcome of the game.



Charles Harris

Charliedharris@hotmail.co.uk

BEng (Hons) Computer Gameplay Design and Production

Gamification: The game design for life

To hypothesise if the recent design field, gamification, can improve engagement in a service or business.



Georgina Hindley

GinaRibbons@hotmail.com
http://ginaribbons.wix.com/conceptartist

BSc (Hons) Games Concept Design

The Production Pipeline of Creating Characters

Showing the process of producing characters within games design technology as a Concept Artist extending the skills to Games Technical Art.



Nathan Holding

Nathanholding@gmail.com
www.artstation.com/artist/nathanholding/profile

BSc (Hons) Games Concept Design

World Building

Using a multitude of design techniques and workflows to create a fantasy world based on my creature concept image.



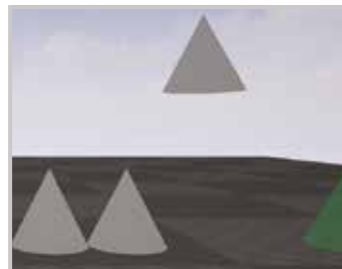
Philip Igo

philip.j.igo@gmail.com

BSc (Hons) Computer Games Design

Post-apocalyptic environment

I am creating a scene that represents a post-apocalyptic environment, Similar to that of the game *Fallout 4*.



Jordan Issa

jordan.issa1@gmail.com
jordanissa.com

BSc (Hons) Computer Games Design and Programming

Unreal Engine 4 Level Editor

An in-depth level editor framework created in Unreal Engine 4 using the Blueprint system.



Mariah Jankie

MariahJankie@msn.com

BEng (Hons) Computer Gameplay Design and Production

2D Side-Scrolling Shooter Game

Creating a single-player game based in a fantasy universe filled with evil creatures for PC. The player takes the role of a character that has to defend their home town from enemies, journey through different environments and collect various items to increase their chances of survival.



Aaron Ketteringham

aaron_ketts@hotmail.com
www.azzaketts.wix.com/aaronk

BEng (Hons) Computer Gameplay Design and Production

Quest Age - JRPG

Influenced by JRPGs, I have created my own independent video game which is portrayed in a low poly art style. The game features characteristic role-playing elements ranging from: classic turn-based combat, a variety of enemies, an inventory, a save game feature, levelling and a quest system.



Dawid Kucharski

dkucharski95@gmail.com

BSc (Hons) Computer Gameplay Design and Production

Retro Games Indie Pack

"Retro Games Indie Pack" is a project where the player receives three dynamic games which are imitating old classics; Pacman, Frogger and Centipede. They are compatible with touch-screens and the player can navigate between games through the menu system with ease. Made in Unreal Engine 4.

JNS Production Handbook



Christopher Lapworth

01chris95@gmail.com

BEng (Hons) Computer Gameplay Design and Production

Junior Senior Production Handbook

For my project piece I shall be creating a Junior Senior Production handbook. I will gather information from: students, literature and self-experience. I will then correlate this information to conclusively create an easily referable handbook for all future video game producers that work within the JNS process.



Dale Longshaw

lonshaw.dale@gmail.com
www.dalej.co.uk

**BEng (Hons) Computer
Gameplay Design and
Production**

UT4 Invasion Gamemode

The goal of this project is to design, test, and produce a wave-based survival Gamemode for Unreal Tournament 4. The multiplayer Gamemode features 2 key new mechanics - an AI director, and an adaptive turret that changes shape based on the weapon it was activated by.



Colin Mathews

ccmathews94@gmail.com
www.colinmathews.com

**BSc (Hons) Computer
Gameplay Design and
Production**

How is a modern video game marketed?

An investigation into the marketing techniques used for modern video games and how effective the marketing methods are amongst gamers. The project will take an in-depth look at how trustworthy, gamers consider these sources to be and the effect of 'fanboyism' on gamers' purchasing decisions.



Alexander Milner

contact@alexmilner.co.uk
www.alexmilner.co.uk

**BEng (Hons) Computer
Gameplay Design and
Production**

Development of Production- Level Multiplayer Maps

Investigation and development of production-level multiplayer maps. Products will be created using Unreal Tournament 4 Editor to showcase level design skills, including: level flow, testing & feedback, and design approach through Capture the Flag (CTF) and Deathmatch (DM) style maps.



Armin Momtahan

armin_momtahan@hotmail.co.uk

**BSc (Hons) Games Concept
Design**

The revival of classic heroes

For this project I'll be bringing a character from an ancient text to life through the use of Zbrush and use a wide range of influences to make the character appealing for modern audiences. The chosen character is Enkidu from 'The Epic of Gilgamesh', a warrior who once upon a time roamed the plains with beasts.



Vaidas Okunis

vaidas.okunis@gmail.com
www.VaidasDesign.com

**BSc (Hons) Computer
Games Design**

Procedural town generation

This is a technical demonstration made in Unreal Engine 4 that can generate unique looking 3D towns with a single button click.



Thomas Oliver

TheFuzzyMole@hotmail.com
www.TheFuzzyMole.com

**BSc (Hons) Computer
Games Design and
Programming**

Dynamic Free-Running Character Controller

A unity character controller that can dynamically execute free running techniques using solely the geometry of the level. This controller is designed to be used by designers to provide proof of concept, and as such there is full documentation on how to modify this system to change the feel of movement.



Lewis Parkinson

lewisjparky@msn.com
www.lewis-parkinson.com

**MEng Computer Games
Design**

Re-Imagination of a classic arcade game

A re-imagination of a classic arcade game within a different environment adding extra mechanics while keeping the original appeal and enjoyment of the game. Pick up passengers and take them to their destination as quick as possible while trying to survive in the worn torn city.



Denny Phelan

dentphlan@hirundine.co.uk
https://hirundinedesign.
carbonmade.com

**BSc (Hons) Computer
Gameplay Design and
Production**

Rollin'

A casual Android game created in Unreal Engine 4. Using swipe-to-move mechanics, the player must aim to keep the ball rolling without falling off the wall, collecting pickups which adds to overall score, as they travel.



Matthew Phillips

mattjohnphillips@gmail.com
www.matthewphillips.co.uk

BSc (Hons) Computer Games Design and Programming

Project Limbo - Creating a Roguelike game

In limbo a demigod fights past versions of himself until one incarnation succeeds. Your past achievements may come back to haunt you as your past lives are now your enemies. Touching on some genres such as dungeon crawlers, RPGs and rogue-likes the game is a mixing pot of awesome.



Adam Poulton

mradamspoulton@gmail.com

BEng (Hons) Computer Games Design

Portrait Production - Creating a Realistic Portrait

To create a photorealistic portrait of a woman rendered realistic with lights and various maps.



Sam Poyner

www.spoynner.com

BEng (Hons) Computer Games Design

The Evolution of Reward in Games

An in-depth study of rewards in games and how the introduction of MMO mechanics in triple-A shooters was used to motivate players with the aim of designing a new possible reward system.



Daniel Riley

DynamiteDan2012@outlook.com
www.danielrileygamesdesign.com

BSc (Hons) Computer Gameplay Design and Production

Interactive Environment Systems

Implementing interactive environmental systems that I have created, into a playable game using Unreal Engine 4. The game will have different interactive environment systems that showcase various types of environmental interaction.



Jamie Roebuck

jamieroebuck@outlook.com

BSc (Hons) Computer Games Design

UE4 Playing Card Game Framework

A versatile and adaptable framework for playing card games, made in Unreal Engine 4. The system allows for a multitude of card games to be played including: Pontoon, Blackjack and Solitaire.



Luke Seymour

luke_pookums@hotmail.co.uk
www.lukeseymour.co.uk

BEng (Hons) Computer Gameplay Design and Production

How and to what extent do video games promote brain training?

This project is the research and culmination of looking into how games can improve cognitive abilities.



Israfel Sskaara

SskaaraCometh@gmail.com
<https://sskaara.wordpress.com>

BSc (Hons) Computer Games Design and Programming

Improving Particle Effects

My project has a basis in the construction of particle effects in two forms, the more commonly used billboarded method as well as volumetric particles.



Joseph Stephenson

06jstephenson@gmail.com

BSc (Hons) Computer Games Design and Programming

Spell casting via typing

My project is a demo of a type-to-cast magic system. It also has additional features to show off possible use and interactions.



Ajay Stewart

ajay@ajaystewart.com
www.ajaystewart.com

**BSc (Hons) Computer
Gameplay Design and
Production**

**The Effects of YouTube and
Twitch on Games Journalism**

An in-depth look at how the rise of user-generated content on YouTube & Twitch has affected the perception of traditional games journalism and the type of content released.



Stuart Storey-Hawthorn

Stuart_hawthorn@hotmail.com

**BEng (Hons) Computer
Gameplay Design and
Production**

Hearthstone Expansion

Designing and balancing a new deck style into the existing game Hearthstone.



Daniel Travis

dan.travis@hotmail.co.uk
https://dantravis.carbonmade.com

**BEng (Hons) Computer
Gameplay Design and
Production**

**The Development of
Emotionally Resonant
Gaming Experiences**

The aim of this project was to create a number of small, unique games that explore the many different ways that games designers can create emotionally resonant pieces of work. Each game has been designed using my own feelings and emotions as the subject matter with each one exploring a different concept.



Matthew Vickery

matt.vickery@gmail.com
mattvickery.com

**BSc (Hons) Computer
Games Design and
Programming**

Battle Monsters: Card Game

Battle monsters is a game where you will use a randomised deck of cards to take your opponent's health points down to zero using a mixture of trap, magic and monster cards.



Davin Ward

mrdaveoso@hotmail.co.uk

**BSc (Hons) Computer
Games Design and
Programming**

**Is it Viable to Create a
Mobile Video Game Using
Both AR and VR?**

This project is an investigation into creating a mobile game that utilises both VR and AR technologies. One of the main aims is to determine whether or not the experience of playing a VR game on a mobile platform is viable in terms of the current level of technology available and the resulting player experience.



Connor Westrope

connorwestrope@gmail.com
cojowe.com

**MEng (Hons) Computer
Games Design**

**Applying "Game Feel" to a
fast-paced combat game**

A multi-player vehicle combat game with a focus on fast-paced combat and modular weaponry. The arena is a large open desert with a horde of deadly traps and hazards. During the development of this game I intend to focus on player fun and interaction by implementing and fine-tuning a pleasing player feedback loop.



Jacob Whitehouse

jwhitehouse256@gmail.com
www.JacobWhitehouse.com

**MEng (Hons) Computer
Games Design and
Programming**

**Designing and building a
game in UE4**

Showcasing a tile-based tower defence game I have designed and built with UE4 using Blueprint as well as other parts of my portfolio.



Matthew Williams

W005803b@student.staffs.ac.uk
mattwilliamsgamesdev.com

**MEng (Hons) Computer
Games Design and
Programming**

**Vehicle and Weapon Arcade
Shooter**

Weapon and Vehicle Arcade Shooter - Focusing on Modular Vehicles and Load-out Systems, allowing for both single and 2-player local matches against AI.



Ross Workman

rossrick@hotmail.co.uk

**BEng (Hons) Computer
Gameplay Design and
Production**

**How the community of
Pokemon has evolved with
the franchise**

Pokemon is one of the largest and most popular game series in the world, its popularity spanning across the globe, but how does a company like Game Freak manage a community with so many people in it? This project aims to tackle that question and provide a detailed answer while also assessing the success of "Pokemon Go".

Games Modelling and Animation

STAFFORD



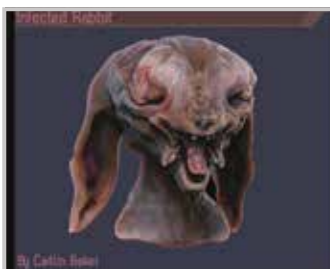
Blake Badger

blake.badger@live.co.uk
blakebadger.com

**BEng (Hons) Computer
Gameplay Design and
Production**

3D Environment Artist

A Chinese temple complete with both an interior and exterior filled with a variety of weaponry fit for an ancient legendary warrior.



Caitlin Baker

c.baker.3dartist@gmail.com
https://caitlinbaker.carbonmade.com

**MEng (Hons) Computer
Games Design**

3D Character Artist

I will be showcasing character models I have created, ranging from high resolution sculptures to characters implemented within a game.



Murray Bateman

bateman.murray@gmail.com
www.emby.co.uk

**BSc (Hons) Computer
Games Design**

3D Architectural Visualisation Environment, Modern Apartment

A 3D environment depicting a modern day high-rise apartment constructed and presented using industry standard software including Autodesk 3Ds Max, Adobe Photoshop, and Unreal Engine 4. The scene uses architectural visualisation workflows to portray an environment which is as accurate as possible to real-life reference.



Alexander Berrow

alex.berrow@gmail.com
http://alexberrow.wix.com/
3d-artist-portfolio

**BSc (Hons) Games Technical
Art**

Familiar Faces

In this project I have attempted to model various faces and facial expressions, using people that I know as reference. Following this I then went on to model another character in full.



Robert Birks

ii_roob@hotmail.co.uk

**BSc (Hons) Computer
Games Design**

Bolt - Hand Cannon

Bolt is a weapon modelled to fit into the specification and art style of the existing game, Destiny. I have used similar design direction and modelling techniques where possible. Autodesk 3ds Max will be used throughout the creation of the asset.



Harry Brown

brownimations@gmail.com
https://brownimations.
artstation.com

**BSc (Hons) Computer
Games Design**

Animated in-game character

My project is to create animations that will be placed into UE4 to make a fully functional and playable character with various body mechanics, as well as an enemy for the player to fight. I used blueprint to create the character mechanics.



Samuel Bruce

iamsam@samiam.co.uk
www.samiam.co.uk

**BEng (Hons) Computer
Games Design**

Formula Future

A concept model of how a Formula One car may look in 10 - 20 years' time.



Weilun Chin

soki_1412@hotmail.com

BSc (Hons) Games Technical Art

Anteiku the coffee shop

Recreating the inside of a coffee shop from the anime *Tokyo Ghoul* with semi-realistic texture. The inside of the shop will be destroyed as if a crime scene happened, so there'll be blood, broken table, broken glass etc.



Anthony Clark

antman231@gmail.com

<http://antm4n.uk>

BSc (Hons) Computer Games Design

90s New York Subway Station

To model and texture a 90s New York subway station environment and present it in Unreal Engine 4 making use of the engine's capabilities such as PBR. It will follow industry limitations such as polycount and texture limits to ensure that the environment could be playable on current gen hardware.



Elliot Clarke

spinner912@googlemail.com

www.elliottclarke3d.com

BSc (Hons) Games Technical Art

Super Cobra Attack Helicopter 3D Model

An accurate 3D model of a Super Cobra attack helicopter. Modelled within 3DS Max, textured in Photoshop, presented in Unreal Engine 4 using PBR rendering and made flyable with realistic controls through the use of Unreal Engines' blueprint editor.



Luke Cleaver-Dowsett

lucas.dowset@gmail.com

<http://lukedowsett5.wix.com/lukedowsettanimation>

BEng (Hons) Computer Games Design

Pink Panther Playable Character

My project was to create a hand-animated animation set based on the Pink Panther. The character is fully playable inside Unreal Engine 4. Animations were created using Autodesk Maya.



Thomas Clewley

MEng (Hons) Computer Games Design

Investigation into Hard Surface character creation for games

An investigation into the workflows for next gen Hard Surface character creation focusing on the uses of normal map information within the pipeline and how it can be used within Hard Surface modelling and texturing. To build a game ready Hard Surface character and to be targeted towards the existing franchise of *Elysium*.



Gareth Codling

gareth_codling@outlook.com

www.gazman162.com

BEng (Hons) Computer Games Design

Creating the Milano from Guardians of the Galaxy

The development of a spacecraft from pop culture into a game-ready asset presented in Unreal Engine 4. The Milano from *Guardians of the Galaxy* created in accordance to specifications for a current generation space simulator. Use of PBR Materials and Sub-D workflows.



Thomas Cox

tombyte3@gmail.com

www.tomcox3d.com

BSc (Hons) Computer Games Design

Modular and Compositional Environment

To produce a high quality, industry-standard environment using modularity and unique assets, all while using skills and techniques to achieve a current generation look. Furthermore to compose the scene from various angles to aid the viewer into the level via compositional lines.



Arkadiusz Dawidowski

arcadius3d@gmail.com

www.arcadius.co.uk

BSc (Hons) Games Technical Art

Rigged and Animated Hardsurface Character

This project is about creating a mechanised game ready character with advanced rigging system and cycle animations. This project takes into account the whole workflow from designing to producing a final game ready piece with a full range of animations. Maya is the software used for modelling, rigging and animation.



Benjamin Dooley

bendooley@hotmail.co.uk
www.bd3d.co.uk

BSc (Hons) Computer Games Design

Bioshock's Big Daddy as part of Davy Jones' Crew
Collaborations have a large place in the hearts of most gamers, two of their favourite franchises combined to create something greater. This collaboration aims to answer the question of what the fearsome Big Daddy from Bioshock would look like as one of the crew of the Flying Dutchman from *Pirates of the Caribbean*.



Thomas Edwards

homasedwards2k10@gmail.com
www.tedwards3d.com

BEng (Hons) Computer Games Design

3D Vehicle Artist
Creating two vehicles (Maserati GranTurismo/Land Rover Defender 90) using current generation techniques to model, unwrap and texture game-ready assets for use in Unreal Engine 4.

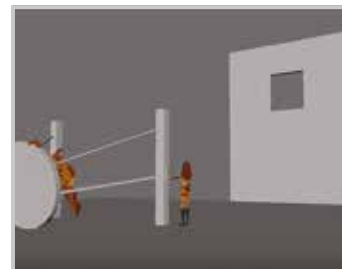


Joshua Edwards

enigma.edwards@gmail.com
www.s1crys3d.co.uk

BEng (Hons) Computer Games Design

3D environment artist (ultra-modern environment)
The aim of the project is to create an environment based around an ultra-modern design with an overgrown post-apocalyptic feel.



Ben Edwards-Ellis

benedwards1994@gmail.com
www.artstation.com/artist/benedwards94

BEng (Hons) Computer Games Design

Disney Inspired Animations
The project involves 3 Disneyesque animations e.g. *Kung Fu Panda* that each involve comedy. A guy and a girl play a master and apprentice role.

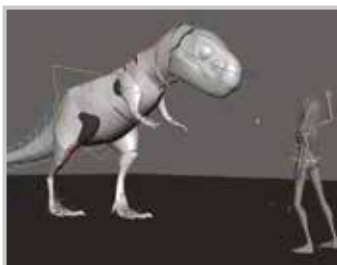


Samuel Egan

ismeeegzi@gmail.com

BSc (Hons) Games Technical Art

Interactive Environment of the T.A.R.D.I.S
An interactive 3D environment based on the T.A.R.D.I.S and how it can look in Unreal Engine 4 to be bigger on the inside.



Mark Elms

elms.m.p@gmail.com

BEng (Hons) Computer Gameplay Design and Production

3 by 10 Animation Shorts
Three ten-second animation shorts that contain elements of comedy. The animations are about a girl and pet T-Rex.



Thomas Fardon

Tom_fardon@hotmail.co.uk
tomfardon3d.artstation.com

BEng (Hons) Computer Games Design

Practical Study of Vehicle Modelling and Texturing for Games
To create an Audi R18 Le Mans racing car for current Gen PC and consoles. Using PBR materials to create a high-detail model for use in UE4 as a game-ready asset.



Neil Fisher

neil_fisher91@hotmail.co.uk
http://neilfisher910.wix.com/nfisheranimations

BSc (Hons) Computer Games Design

Soul Reaver Cinematic cutscene
With technology used by the games industry today, a cutscene used in a game 17 years ago, will be remade, to show how far the advancements in animation have come, in a short time. The reimagined cutscene will be motion captured as well as featuring facial movement to show subtle emotions and enhance performances.



Anastacia France

anastaciafrance@icloud.com
www.anastaciafrance.co.uk

BEng (Hons) Computer Games Design

Female 3D Character, Elefarda

Elefarda is a warrior angel created in 3ds Max, ZBrush and Photoshop. The character uses industry production methods for current gen game characters. It combines organic and hard surface techniques, high poly sculpt, retopologised mesh - including animation loops - and texturing to be posed and presented within UE4.



Alexander Francis

afrancis2012@hotmail.co.uk
https://afrancis3dmodel.artstation.com

BSc (Hons) Computer Games Design

Research and Production of Industry Standard Environments

Research into producing an industry standard, Unreal Engine 4-ready environment following industry artists' workflow.



Benjamin Gibbons

bgibbons3d@gmail.com
bgibbons3d.artstation.com

BEng (Hons) Computer Games Design

Next-Gen re-imagining of World of Warcraft environment piece

This project demonstrates the creation of game-ready assets based on next-gen specifications. Using researched techniques from industry professionals, the final piece will utilize all of the tools available in present day game development. The piece will be presented in Unreal Engine 4.



Jordan Green

jordan.green@hotmail.com
huttle.artstation.com

BSc (Hons) Computer Games Design

A 3D Environment based on a Game of Thrones Great Hall

A 3D environment based on the concept art of House Forrester's Great Hall by Patrick Jensen, using the power of Unreal Engine 4 to create a game ready, but realistic scene.



Adam Griffiths

adamgriffiths11@hotmail.co.uk
https://adamgriffiths11.carbonmade.com

BSc (Hons) Games Technical Art

Renaissance inspired scene

Renaissance-inspired game environment from concept art, in a realistic style using Unreal Engine 4.



David Hadden

davidhughhadden@outlook.com
davidhughhadden.carbonmade.com

BSc (Hons) Computer Games Design

Victorian-era Railway Station Environment

A model of a Victorian-era countryside railway station. The centrepiece of the scene is a model of the Midlands Railway 115 class, commonly known as the Midlands Spinner. This project is designed to showcase both modelling and texturing ability, as well as showing competence with importing work into a AAA engine.



Daniel Hannabuss

DJHannabuss@gmail.com
ZOTIIX3D.co.uk

BSc (Hons) Computer Games Design

3D modular building sets for a sci-fi racing game

The project will consist of multiple building sets that will snap together modularly and material instanced textures that can be altered without the need of more texture memory. This means that a varied environment can be made faster and with a smaller amount of meshes and texture than if every asset was created individually.



Dale Harvey

Dharvey3D@Gmail.com

BSc (Hons) Computer Games Design

Recreating Epic Game's UE4 "Elemental Demo" Throne Room

I take a close look into the workings of an industry standard piece in the hope of recreating and potentially improving certain aspects of the scene. Taking artistic licence where I feel necessary to create a game-ready piece of a high professional standard.



Robert Hicklin

hickr001@gmail.com

BEng (Hons) Games Technical Art

Greco-Roman Temple

A 3D environment created in the UE4 engine based around Greco-Roman Aesthetics.



Christopher Hollywood

christopherahollywood@gmail.com

BSc (Hons) Computer Games Design

Sci-Fi Racing Track

A futuristic racing track that can be placed into Unreal Engine 4 and generated with splines to create a completely playable track. Additional environment assets have been created alongside it.



Christopher Horton

Hortonhearsapoly@hotmail.com
<http://chrish3d.wix.com/hortonpoly>

BSc (Hons) Computer Games Design

Next Gen Viking Character

Creating a next gen Viking character for use in games. The project uses a combination of 3DS Max, ZBrush, Photoshop, Quixel Suite 2 and Unreal Engine 4.



Roger Howe

r.a.howe@btinternet.com
<https://rogerhowe.carbonmade.com>

BSc (Hons) Games Technical Art

3D model of 'Wolverine' in the likeness of Hugh Jackman

3D model of 'Wolverine' in the likeness of Hugh Jackman. Constructed from on-line and gathered references using a pipeline incorporating the following software packages: ZBrush, Maya, Photoshop and X-normal. The resulting High-poly character has been re-topologised to create a low-poly game version posed and rendered in UE4.



Oliver Iles

oliverjamesiles@gmail.com
<https://uk.linkedin.com/in/olligon>

BSc (Hons) Computer Games Design

The Shire environment based on J.R.R Tolkien's works

Creation of a game-ready environment from a literary source. Presented in Unreal Engine 4, with PBR materials, water and foliage shaders and Unreal Engine particle effects. With studies into industry examples and the necessary workflows to achieve an industry standard.



Farzin Izadyar

farzin_iz64@yahoo.com
www.farzinizadyar.com

MEng (Hons) Computer Games Design

Likeness Sculpting

Creating a realistic character for games (likeness of a person) which includes sculpt, retop, unwrap, texture, shaders and presentation in UE4.



Craig James

craig_jj@hotmail.co.uk
craigjjanimations.portfoliobox.net

BEng (Hons) Computer Games Design

Character Animation

I will be using a Mo-cap suit to capture a variety of animations which will be cleaned up and fixed in Motion Builder and Maya.



Matthew Jones

negisgotemail@gmail.com
<https://negi.artstation.com>

BEng (Hons) Computer Games Design

Birmingham Bullring in the style of the game *Dirty Bomb*

My project is an environment based on the real-life location 'Bullring Birmingham' in the style of Splash damage's game *Dirty Bomb*. It also features the interior of the building built out of modular pieces and some futuristic assets that are similar to that within *Dirty Bomb*.



Ashley Key

ashley.key@hotmail.co.uk
https://twitter.com/Ashley_Key_Art

BEng (Hons) Computer Games Programming

In-game Floating Islands Environment

A purely visual environment consisting of surreal floating islands in a tropical climate. The scene is simulated using Unreal Engine 4 and created in Pixologic ZBrush, Autodesk 3DS Max and Adobe Photoshop.



Azam Khan

azamkhandev@gmail.com
www.azamkhan.co.uk

BSc (Hons) Computer Games Design

Sci-Fi Modular Environment

Production ready, sci-fi environment presented within UE4. Made using various techniques in asset production. Utilising next gen asset creation techniques such as PBR texturing and master material. Also keeping the environment modular and optimised.



Umar Khan

umarkhandev@gmail.com
umarkhan.co.uk

BSc (Hons) Computer Games Design

The Baron's Hanger

Creation of a hanger where three ancient D-1 Space Superiority Fighters sit, relatively unattended. Using industry techniques and tools to create the scene, which is presented within Unreal Engine 4.



Christine Kirkham

christinekirkham@hotmail.com

BSc (Hons) Computer Games Design

Replication of stylized clothing and for an existing I.P

The study of stylised clothing and their replication for an existing I.P in the Unreal 4 Engine.



Aikaterini Kokozidou

aikaterini.kokozidou@gmail.com
www.artstation.com/artist/aikaterinikokozidou

MEng (Hons) Computer Games Design

3D Visualisation in 3Ds Max

Hard surface modelling and V-ray Rendering of realistic environments in 3Ds Max. Texturing and compositing was completed in Photoshop.



Martyn Leeper

martynleeper@live.co.uk
www.martynleeper.com

BSc (Hons) Computer Gameplay Design and Production

Next-Gen Environment inspired by *Splinter Cell* and *Deus Ex*

A *Splinter Cell* and *Deus Ex*-inspired level design, presented inside of Unreal Engine 4.



Ross Littlejohn

contact@ross-littlejohn.co.uk
www.ross-littlejohn.co.uk

BSc (Hons) Computer Games Design

Bioshock: Medical Pavilion

A recreation of the Medical Pavilion level from the first *Bioshock* game, rendered and presented in Unreal Engine 4 with greater detail and additional elements.



Katrine Loraas

katrineloraas@gmail.com
www.katrineloraas.com

MEng (Hons) Computer Games Design

Creating Environment for Games

BioShock - inspired environmental piece presented within Unreal Engine 4.



Brian Lunnon

brianlunnon@gmail.com
www.brianlunnon.com

BEng (Hons) Computer Games Design

3D Vehicle Artist

An investigation into the workflows of current gen methods to create a game ready F-22 Raptor and a Ferrari 250 GTO (1963) to be presented in a real time game engine.



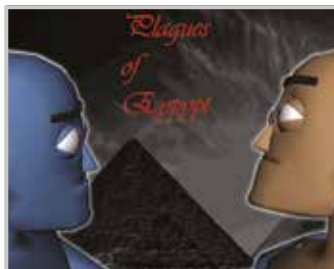
Katie Lydon

katielydon94@gmail.com

BSc (Hons) Computer Games Design

Ballerina Animation in Maya

An animation of a ballerina and a clown created in Maya 2016. My aim was to apply the 12 principles of animation to a character which is completely fluid and graceful, and to a character who is very over-the-top and had exaggerated movements.



Quaid Nash

quaidnash@googlemail.com

BSc (Hons) Computer Games Design

Lip Synced Animation to *Plagues of Egypt*

Project is to include a few basic rigs (The same ones but with different colours) moving around the scene while singing the *Plagues of Egypt*. The two main rigs will play as Ramses and Moses.



Thomas Ollis

thomasolls@hotmail.com

BSc (Hons) Computer Games Design

Creating an abandoned desert gas station

I will be modelling an old abandoned gas station set in the desert, similar to that of the film *The Devil's Rejects*. This will be achieved using 3DS Max, ZBrush and UE4.



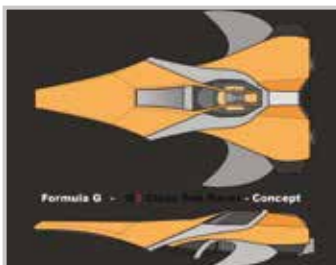
Joe Peatfield

joe@joepeatfield.co.uk
http://www.joepeatfield.co.uk

BEng (Hons) Computer Games Design

Unreal Tournament 4, Stinger Minigun

The aim of this project was to create a current gen-quality weapon model for use as the Unreal Tournament 4 Stinger Minigun, complete with animations, effects and implementation in the Unreal 4 engine.



Conor Preston

evercon@hotmail.co.uk
https://conorpreston3d.artstation.com

MEng (Hons) Computer Games Design

Formula G - G1 Class Anti-Gravity Racing Vehicle

To design, produce and present an 'Anti-Gravity Racing Vehicle' inspired by 'Wipeout' for next gen platforms. Presented in Unreal Engine 4 utilising Full PBR material and shader Workflow to show a highly detailed and playable vehicle for use in 'Formula G'



Daniel Redfern

rustns1@gmail.com

BSc (Hons) Computer Games Design

Real Mario

'Real Mario' is a hand-animated character based on the animations of 'Super Mario' from 'Super Mario Bros.'. The character poses are exaggerated with reactions to the environment grounded in reality. It is presented as a playable character in Unreal Engine 4.



Daniel Savage

danielsavage92@gmail.com

BSc (Hons) Computer Games Design

Barbarous: The Avenger- A UE4 Animation Project

For my GradEx project, I took a rigged character from the free UE4 infinity blade assets and set that character up to become a hack and slash character with both mouse, keyboard and controller support. The end result will be a fully playable, 3rd-person character within the Infinity Blade Grass Lands map.



Paul Scott

paulscottdesign@gmail.com
pasco295.deviantart.com

BSc (Hons) Games Concept Design

Sarebo Island

A fully 3D-rendered environment with exploration gameplay in Unreal Engine 4. The island contains a variety of assets created with levels of detail variations. This project uses the PBR workflow researched in my dissertation and methods of effectively guiding players through key areas of an open world.



Grant Smith

grantjhsmith@yahoo.co.uk
http://aroth-took.weebly.com

BSc (Hons) Computer Games Design

V and Delia - an interrogation

A re-imagining of the prior part of the scene in *V for Vendetta* in which the protagonist converses with his victim and listens to her reasoning before her death.



Andrew Swan

swans93@hotmail.co.uk

MEng (Hons) Computer Games Design

Sci-fi character

My project will involve the creation of a stylised female Sci-Fi character following a concept. This project will demonstrate skills ranging from sculpting human anatomy, creating a likeness, sculpted drapery, clothing creation and hard surface accessories. The project will be supported by isolated anatomical sculpts of the female character.



Thomas Tovey

thomas.tovey@virginmedia.com
thomastovey.com

BEng (Hons) Computer Games Design

Warhammer 40,000 Cinematic Cutscene

An original cutscene set in the Warhammer 40,000™ Universe by Games Workshop® and based on the board game *Assassinorum: Execution Force*. Rendered in Unreal Engine 4, it follows a Vindicare Assassin as he attempts to prevent a Sorcerer from completing his dark ritual.



Dominic Towers

dominic.towers@gmail.com
http://dominictowers.wix.com/gameportfolio

BSc (Hons) Games Technical Art

Level up

In this project I created a child imagining themselves as an older adventurer, giving me two models to work with and trying to make their facial features look the same.

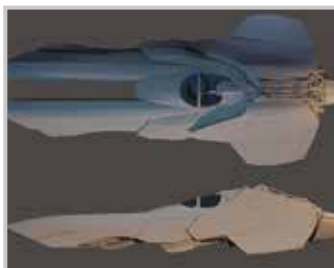


Christin Varghese

BSc (Hons) [Top-up] Computing Science

3D Teeth Model

My project is about an interactive 3D model of human teeth which the dentist can show to their patients and educate them in what kind of treatments and procedures they will be having.



Thomas Woodward

thomas@midgard-illustration.co.uk
www.artistation.com/artist/minimacman

BSc (Hons) Computer Games Design

Design and creation of an anti-gravity style racer

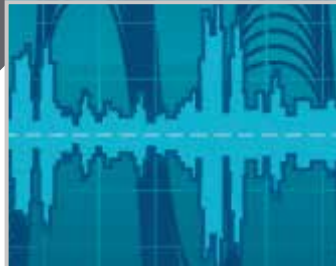
To concept, design and create a *Wipeout*-inspired Anti-Gravity racer for next gen racing games on PC and consoles. Using PBR materials and normal maps to create a high detail model for use in a UE4 game as a playable vehicle.

Games Programming

STAFFORD

Sponsored by the
**ACH Crisford Charitable
Foundation**

Andrew Crisford is a
Computing graduate from
Staffordshire University.



Lewis Andrews

lewis.s.andrews@gmail.com

**BSc (Hons) Computer
Games Programming**

**Manipulation of Game
Environments Using Audio
Waveforms**

A game made in unity that
uses the audio of a song to
directly manipulate the game
environment. Different songs
will produce different game
play experiences. Fast songs
are hard, slow song are easy,
but each song providing a
unique challenge.



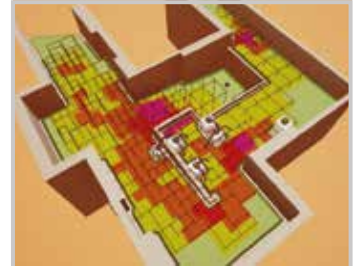
Aaron Austin-Lacy

ajzahtiri@gmail.com

**BEng (Hons) Computer
Games Programming**

**Using Mobile Devices to
Control a Game Hosted on
a Computer**

The project researches and
implements an Android
smartphone mobile device
app that is a controller for
a game running on a local
computer. The user then uses
the mobile device to control
and play the game.



Thomas Bartholomew

t.a.bart@outlook.com

tombart.carbonmade.com

**BEng (Hons) Computer
Games Design and
Programming**

Smart Bots: Adaptive AI

Online games cannot always
fill matches with players, but
replacing them with AI bots
can spoil the experience.
Predictable, repetitive, and
unable to adapt, they often
become the bane of casual
and competitive games.
This project is designed as a
solution, using player data as
a base for automated meta
adaptation.



Daniel Bogнар

imdani89@hotmail.com

http://imjoey1989.wix.com/
danielbogнар

**BSc (Hons) Computer
Games Design and
Programming**

**MMORPG Game with
Various Games Features**

Creating an excellent
combination of Massively
Multiplayer Online Role-
Playing Game with third
person shooter game. Going
to combine an ancient
tradition style with futuristic
style in the game world. Will
be implemented personally
designed skill tree system
with abilities.



Harrison Brown

harrison.brown@live.co.uk

**BEng (Hons) Computer
Games Programming**

**Reducing Load Times When
Loading World Data into a
VideoGame**

The aim of my project is to
research and develop ways of
loading in assets to a video
game without causing any
downtime to the user.



Luis Checa Marchand

luis@checa.com

luis-checa.com

**BSc (Hons) Computer
Games Programming**

**AI Navigation in a 3D
Destructible Environment**

Exploration of the challenges,
such as efficiency and
suitability, of creating
and controlling AI agent
navigation inside a highly
volatile 3D destructible
environment.



Zachary Clennell

zac.clennell@gmail.com

https://zclennell.carbonmade.com

**BSc (Hons) Computer
Games Programming**

GUI-Based 2D Game Engine

This is a well-structured
game engine that allows the
user to quickly create and
edit objects dynamically at
runtime with no programming
knowledge required. Utilises
a graphical user interface,
allows for the creation of
simple events and behaviours,
and provides the ability to
create and import levels using
external tools.



Anna Dawson

annamariad2014@gmail.com

BSc (Hons) Computer Games Programming

Using Behavioural Change Theories to Enhance A.I. in Games

Looking at previous applications of Artificial Intelligence within games and other media, the ways in which a player's experience of human behaviour within games can be enhanced has been simulated to demonstrate potential future developments in this area of Artificial Intelligence.



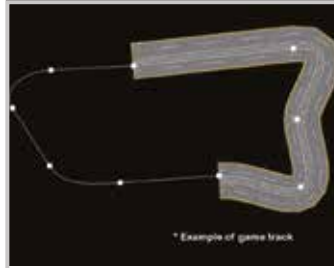
Scott Evans

scottdjevans@gmail.com
<https://github.com/ScottDJEvans>

BEng (Hons) Computer Games Programming

Fighting Game AI

Street Fighter, Tekken, Mortal Kombat. If you've ever played any of these series, you'll know first-hand both the difficulty (cheating) and (un)sophistication of the AI. In this project, the key aim is to create a Fighting Game AI that replicates a human player, using human players to verify in a Turing-style Test.



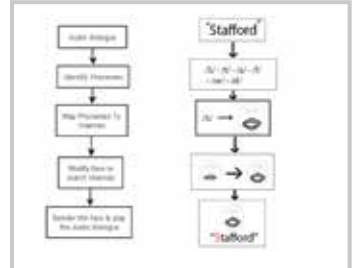
Eliot Gannon

eliot@gannon.network
<http://eliot.gannon.network>

BSc (Hons) Computer Games Programming

Procedural 2D Top Down Racetrack Game

This project will be using procedural algorithms to automatically generate a track with a set size for each level with realistic race track corners allowing the user to complete the track without having knowledge of the track design which makes the game unpredictable giving the player a challenge each time.



Joshua Gibson

joshdgibson21@outlook.com

BSc (Hons) Computer Games Programming

A Study in Real-Time Facial Animation and Lip Synchronisation

Computer Games often feature dialogue spoken by characters, some games will animate the face of the character that is speaking. Some games succeed in matching the animation to the dialogue & some do not. This project aims to create a system that animates a character's lip movements based on provided auditory dialogue.



Jurrell Graham

JurrellGraham@gmail.com

BEng (Hons) Computer Games Design

Time Trail Stealth Game

A game of stealth where the player has to disable a bomb before it detonates, by sneaking and eliminating to avoid detection.



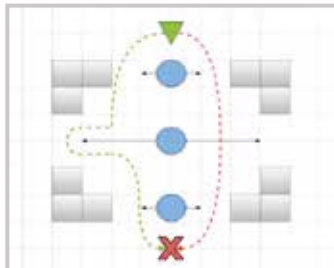
Mitchell Hancock

mitchell.hancock93@gmail.com

BSc (Hons) Computer Games Programming

Poker Artificial Intelligence

A poker game which is focused on the Artificial Intelligence (AI) behind the computer poker agents. I look into advanced AI techniques to see how these can be used in the development of high standard opposition. Do you think you can beat it?



James Johnson

jameslj.etc@hotmail.co.uk
jameslj.co.uk

BSc (Hons) Computer Games Programming

Pathfinding for AI Agents in a Dynamic Environment

Pathfinding in games has always had the issue of not being able to take into consideration any obstacles that may move or become present in an already pre-determined path. This project aims to demonstrate and apply AI and pathfinding techniques to take into consideration a dynamic environment.



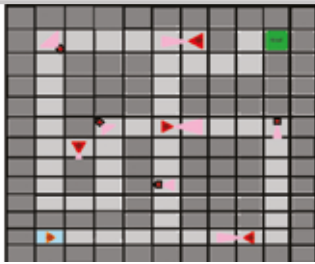
Alex Lord

a_lord93@hotmail.co.uk

BSc (Hons) Computer Games Programming

Research Techniques to Move a Hundred Units through Terrain

To research and apply techniques used in path finding and flocking / unit separation to create a program that will move units through terrain in formation.



Nile McMorro

BSc (Hons) Computer Games Programming

Application of AI in a Player Companion's Stealth Mechanics

Within the Game's Industry Artificial Intelligence has been used in the development of games to augment players' experiences with them although its execution in some areas is lacking. This project in particular aimed to research the use of AI with NPC Companions in Stealth Games and whether it may be improved upon.



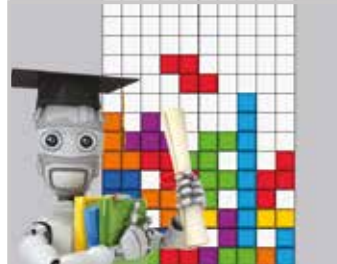
James Miller

thejames12112@gmail.com

BSc (Hons) Computer Games Programming

AI Path Planning in Large Environments

The ability for artificially intelligent players to be able to navigate an environment is a key aspect to many games. This involves both ability to find a path within the environment and to be able to move along this path in a believable manner. The larger the environment the more complex this process becomes.



Stephen Moore

stephenmoore918@gmail.com
http://emorgas.wordpress.com

BSc (Hons) Computer Games Programming

Machine Learning: The future of AI in games?

Machine learning is a rapidly growing sector in technology and is affecting our everyday lives. However machine learning is vastly overlooked when it comes to artificial intelligence in games; could it be used to create agents that play smarter and adapt their strategies through experience?



Oluwarotimi Ogunmakin

timogunmakin@gmail.com
timogunmakin.com

BEng (Hons) Computer Games Programming

Observing with Virtual Reality the Effects of Time Dilation

The project is a solution to replicating a real world astrophysics phenomenon which occurs everywhere in space time. The project aims to highlight the effects of time dilation realistically using formulas researched and questioned by individuals in leading the scientific realm.



James Potts

jamesedwardpotts@gmail.com

BSc (Hons) Computer Games Programming

A World inside a Cardboard Box

Open source hardware such as Google Cardboard creates the opportunity to deliver fully interactive and immersive VR gaming experiences, similar to that of higher priced headsets, using only smartphones. This will open up a new exciting style of play to a much wider audience.



Connor Reilly

creilly1992@googlemail.com

BSc (Hons) Computer Games Programming

Real-Time Physically Based Rendering for Games

The objectives of this project are to research, design and build an artefact that demonstrates the concepts of Physically Based Rendering and how it can be used to create more realistic lighting within games.



Yannick Richeux

richeux4@gmail.com

BSc (Hons) Computer Games Programming

Autonomous Game Agents in Arbitrary Environments

Intelligent agents in games are more time consuming to create as the demand for realism increases. The agents in this project work together in a tactical manner to prevent a player passing through an arbitrary level.



Jared Rufus

BSc (Hons) Computing Science

Collision Management and Resolution in a 2D Environment

An investigation into the different ways that collisions are managed and resolved in various 2D environments. With a focus on analysis of both scalability and efficiency with regards to the complexity of the interactions between the objects.



James Sandford

sandford.james@gmail.com
www.sandfordj.co.uk

BSc (Hons) Computer Games Programming

Comparing VR inputs

Making a multilayer game that uses different Virtual Reality inputs and comparing the use of the inputs.



George Songhurst

george@songhurst.codes
www.songhurst.codes

BSc (Hons) Computer Games Programming

Realistic Real-Time Fracturing of Game World Objects

This project is an attempt at the real-time unique fracturing of objects in a 3D environment based on user input. The application aims to show that unique fractures are more desirable and worth the computational expense as opposed to their pre-baked counterparts.



Kyle Tranter

kyhas@hotmail.co.uk

BSc (Hons) Multiplayer Online Games Programming

Utilising a GRID Environment to Benefit Procedural Terrain

Procedural Terrain generation is one thing but being able to generate these quickly is another. By exploring potential uses of GRID computing, I plan to demonstrate the effects of multiple systems all working on a noise algorithm compared to a control of just a single computer.



Grace Tree

grace.tree@blinkbyte.co.uk
www.treeofgrace.co.uk

BSc (Hons) Multiplayer Online Games Programming

Natural Language Processing in a Multi-user Environment

This project looks at how to create a multi-user chat bot.



Joshua Wells

joshtomwells@gmail.com

BSc (Hons) Computer Science

Simulating Chaos: Video Game Traffic Systems

Cities are bustling hives of activity and nothing illustrates this better than the organised chaos of a city's roads. But some simulations of cities have failed to capture this realistically. What does it take to simulate traffic accurately?



Alexander Whyte

alexander-edu@openmailbox.org

BSc (Hons) Computer Games Programming

Real Time 'Dwarf Fortress' 3D Visualiser

My project is a 3D visualizer for the cult PC/Mac/Linux video game "Dwarf Fortress". The native interface of Dwarf Fortress is presented entirely in ASCII characters displayed within the terminal. My project takes the internal data of a running instance of Dwarf Fortress, and renders the scene in 3D.



Benjamin Woodford

me@benwoodford.co.uk
http://gradex.benwoodford.co.uk

BSc (Hons) Computer Games Programming

Low-Occlusion Full-Body Motion Tracking with Kinect

A low-cost solution to full-body motion tracking through the use of a network-based Microsoft Kinect V2 system. This project investigates and implements a way to track a user's body in 3D space from multiple angles in order to create a more precise, more accurate skeleton for use in virtual environments.

Music

STAFFORD



Jake Barnes

jakebarnes1994@hotmail.co.uk
www.jakebarnesmusic.com

BSc (Hons) Music Technology

Does cost reflect quality in today's music industry?

A study into how relevant professional studios are when it comes to electric guitar recording. My project consists of cost and quality analysis of the three main methods of guitar recording in today's industry. Is mic'ing up an amplifier the only professional method of recording guitar?



Jack Farr

thejafromusic@gmail.com
https://soundcloud.com/from-a-farrproductions

BSc (Hons) Music Technology

Comparing the results/ methods of analogue and digital hardware

My project aims to show the differences between the results produced by analogue and digital production systems, with a focus on production and mixing.

To ensure fair and accurate results, the same microphones were used for the recording of both tracks.



Joshua Gledhill

joshgledhill@icloud.com
www.joshgledhill.co.uk

BSc (Hons) Creative Music Technology

Controlling Software Performance Using Physical Gesture

There are many different ways of engaging with software when performing live electronic music, whether it is a mouse, a keyboard or controller. What happens if music could be created using physical gesture? This project investigates using physical gesture to perform electronic music within software.



Ruth Halsall

r.halsall@hotmail.co.uk

BSc (Hons) Music Technology

Audio techniques used in modern horror games to produce fear

Analysis of the audio techniques used within modern horror games to induce reactions of fear and suspense with the player during "jumpscare" sequences.



Joseph Hewitt

extrajoeheewitt@gmail.com

BSc (Hons) Creative Music Technology

Bloom: Making Immersive Music with Colour and Light

Bloom is a system that harnesses the relationship between sound and colour and uses it to create immersive musical performances. The system tracks colours around a room, and applies sounds corresponding to each. The audience has control over the colours, and is able to direct the overall outcome of the performance.



Emily Law

emilylawenquiries@outlook.com

BSc (Hons) Music Technology with Management

Is a Record Label necessary to achieve Commercial Success?

In this digital age, unsigned music artists have the opportunity to source almost anything independently: from distribution to promotion. Does this render the industry's traditional model ineffective? Or does an artist still need to be signed to a record label in order to achieve major commercial success?



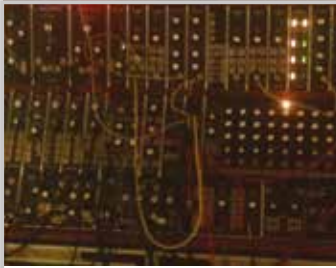
Thomas Ley

tom.ley@btinternet.com
tomleymusic.weebly.com

BSc (Hons) Creative Music Technology

Familiarity within the Unfamiliar

Familiarity has a large part to play in why people listen to music. Experimental techniques used within some forms of electronic music usually separate it from the mainstream. This live electronic music performance however looks to incorporate experimental techniques whilst remaining accessible to wider audiences.



James Malpus

jmalpus@hotmail.co.uk
jamesmalpus.wordpress.com

BSc (Hons) Creative Music Technology

An Investigation into Art Music and Popular Electronic Music

By looking at the relationship between Art Music, Popular Music and Innovations in Technology since the 1940's you can see how music grows and changes. The project asks "was electronic music shaped by technology or did the compositional techniques of previous artists inspire further musicians to create music?"



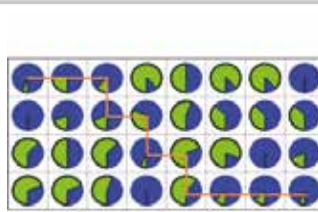
Josiah Samuels

josiah.s@gmail.com
www.displace.tv

BSc (Hons) Music Technology with Management

Freelancing in the Modern Music Industry

This project will aim to determine the most beneficial path for freelancers in the modern music industry by conducting and applying various areas of research whilst measuring the development of an electronic music producer and event's organiser.



Jack Sims

jack@jacks-music.co.uk
www.jacks-music.co.uk

BSc (Hons) Creative Music Technology

Audiovisual composition exploring artificial intelligence

An investigation into the uses of artificial intelligence within the creation of generative Audiovisual compositions. This will be accompanied by a piece of Audiovisual work demonstrating the computer's 'Thought Process' when using search algorithms, and their application to the piece.



Lewis Williams

lewis@imakenoise.co.uk
www.imakenoise.co.uk

BSc (Hons) Music Technology

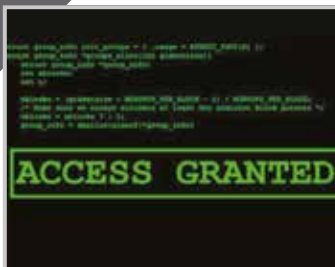
Turbos and Tyres: What does it take to produce audio for next generation racing games?

Long gone are the days where a sound designer would simply create a set of sounds which then, through the dark arts of programming, wound up in game. This project takes an in-depth look at the techniques a sound designer might employ to record, edit and implement audio for next-gen racing games.

Networks, Security and Forensic Computing

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Jordan Arblaster

jordanarblaster@hotmail.com

BSc (Hons) Cyber Security

Inadvertent Cyber Attacks From Within an Organisation

Staff are a company's biggest security asset but also the biggest security threat. Without the correct training & mitigation techniques in place hackers can utilise staff to discover confidential information or access a company's restricted systems using techniques such as phishing, viruses and infected media.



James Arbuthnott

arbuthnottjames@gmail.com

BSc (Hons) Digital Forensics

A Tool to Perform Forensic Analysis of Drones

As with most electronic devices, drones have the capability to be a part of crime. This project is about creating a tool that will recover, analyse and present the data recorded by drones in a forensically sound way, so that an examiner can determine what the drone has done.



Louie Archer

louiearch93@gmail.com

BSc (Hons) Computer Networks and Security

An Investigation into Types of Network Attacks

The project aims to investigate network attacks, studying their motivation and capabilities. The mitigation/prevention will be researched, with attention to built-in security, technologies and techniques. Network attacks will be performed on an unsecured network, and then repeated with security implemented.



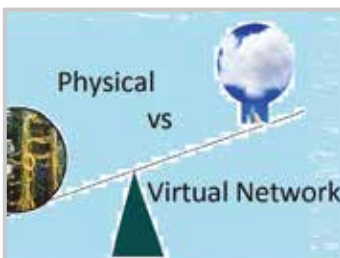
Kelly Ashman

kel_108@hotmail.com

BSc (Hons) Digital Forensics

Recovering App Communication Evidence from Android Emulators

In an age where internet crime is on the rise, there is an increase in the number of methods available that can be used to commit crime covertly. This investigation looks at whether Android Emulators are one of those ways and whether using Social Media and Instant Messaging Apps can be hidden from forensic detection.



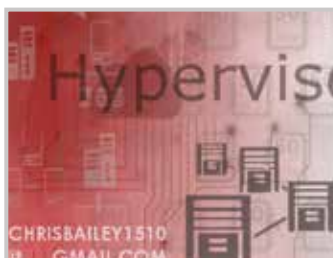
Sasha-Gaye Atkinson-Nyame

sasha.atkinson2@yahoo.com

BSc (Hons) Computer Networks and Security

Comparing Physical vs Virtual Network Device Infrastructure

The project is about building and comparing the throughput of a virtualised network against that of a similar physical network to determine if the virtual is as reliable as the physical. Control data will be sent through both systems and both outputs will be analysed for latency, jitter and loss of data packets.



Christopher Bailey

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BSc (Hons) Network Computing

Hyper Fight

Using emerging private cloud technologies, could virtualization provide benefits to computational power for research and development in a small environment? A comparison of hypervisors through experiments and examples of features, performance and related technologies when implemented using small quantities of hosts.



Jack Ball

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BSc (Hons) Network Computing

Recommendations for Implementing BYOD

Bring Your Own Device: The mobile workplace
The work place is becoming more mobile with more and more different types of devices used in a company network. Ensuring that a network stays secure whilst supporting these new devices is a problem facing many companies today.



Thomas Bye

tombye85@gmail.com

BSc (Hons) Digital Forensics

Digital Forensic Data Recovery from Virtual Machines

This investigation will create a detailed report showing the data that can be recovered from a virtual machine in its different states. The data recovered will focus on the most common file types used in a criminal case involving digital media.



Chi Chan

chan.boy@live.co.uk

BSc (Hons) Network Computing

Investigation in the Effects of Video Streaming in Wireless

Investigation into the difference and effects of video traffic in a wireless network with 802.11b/g/n/ac



Thomas Cocking

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BSc (Hons) Computer Networks and Security

VPN Implementations in Secure Business Network Environments

Modern business network environments often span across multiple geographical locations. Virtual Private Networks (VPNs) can be implemented across public internet infrastructure to improve network resource availability whilst maintaining their privacy.



Alexander Cover

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BSc (Hons) Network Computing

Performance of Physical and Virtual Network Appliances

This investigation will seek to compare the differences in throughput between physical and virtual networking appliances of similar specification, so that conclusions may be drawn as to the suitability of virtual networking appliances in a production environment.



Alan Frost

BSc (Hons) Digital Forensics

Mobile Forensics - Implementing a File Recovery Application

An Android based application, which will forensically analyse a multitude of Android devices for the purpose of recovering deleted files.



Christopher Gray

chrisgray1994@hotmail.co.uk

BSc (Hons) Digital Forensics

An Investigation of Android and its Vulnerabilities

My project is all about finding out the security flaws of Android Operating System and then trying to exploit these vulnerabilities. This will be done using both an Android Emulator and an Android Mobile Phone.



Zain Hussain

BEng (Hons) Network Computing

Impact of Security on Performance of 802.11 Networks

The standardisation of wireless technologies is a continuous process, and even established standards are updated and modified in response to changes in the technology and the marketplace. This project will assess how security has an impact on wireless 802.11 networks via throughput and how they can be addressed.



Robert Jackson

rob@robert-jackson.net
robert-jackson.net

BSc (Hons) Digital Forensics

Forensic Investigation of Wearable Technology

Wearable technology is a fast growing technology sector. With the use of an Apple Watch and other wearable technology devices this project is to investigate what data can be forensically extracted from these devices and how the information obtained can be used in a forensic investigation.



Joshua Jacobs

josh.jacobs19@gmail.com
http://joshjacobs.net

BSc (Hons) Computer Networks and Security

Rogue Access Points in a Corporate Environment

Wireless devices are becoming more popular in both consumer and professional environments. Due to this popularity attackers have another way into many networks. Users often deploy rogue access points to circumvent security policies or BYOD restrictions but they can also be an easier way into a network for attackers.



Daniel Jones

dan@dan-jones.info

BSc (Hons) Computer Networks and Security

Internet of Things: Security via Machine-Learning Algorithms

This project aims to improve the security of Internet of Things devices via implementation of machine-learning software. To achieve this an investigation of biologically inspired machine-learning techniques will be performed. The goal of the software is to recognise normal behaviour of devices and highlight anomalies.

Internet QoS Things

Daniel Jones

j025492a@gmail.com

BSc (Hons) Computer Networks and Security

How QoS Technologies Will Benefit the Internet of Things

An investigation on how the Internet of Things can be implemented within a SMART home environment as well as implementing Quality of Service technologies to improve network performance. The artefact will include a network with IPv4 and IPv6 functionality, as well as analysis on the data consumption within a SMART home.



Dilpreet Kahlon

d.kahlon92@gmail.com

BSc (Hons) Computer Networks and Security

Observing with Virtual Reality the Effects of Time Dilation

The project is a solution to replicating a real world astrophysics phenomenon which occurs everywhere in space time. The project aims to highlight the effects of time dilation realistically using formulas researched and questioned by individuals in leading the scientific realm.



James Littlewood

BSc (Hons) Digital Forensics

Logical VS Physical File Extraction from Mobile Phones

The project is an investigative project that consists of detailed research and experiments on logical and physical file extraction methods that can extract and recover files from mobile phones, as well as different specialist forensic software that can be used to take different file extraction methods into practice.



Mattias Lundberg

BEng (Hons) Network Computing

The Challenges for Secure Wireless IP Communications

An investigation into the transmission overheads created security protocols and encryption on wireless networks, and its impact on throughput, delay and jitter. Investigating the impact on both 802.11n and 802.11ac using IPV4 and IPV6 with different levels of security.



Daniel Mahoney

daniel@mahoney.ovh
www.mahoney.ovh

BSc (Hons) Computer Networks and Security

VPLS over the Internet

This project seeks to explore and develop a prototype for an application that can be run as a SaaS client. This project will take all internal communications (via use of routing default routes) and analyse the packets destination IP. The packet will then be encrypted and sent over the internet without alteration.



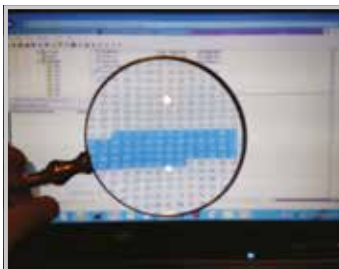
Tamara Mason

t.mason92@outlook.com
https://uk.linkedin.com/in/tamaramason92

BSc (Hons) Digital Forensics

Can You Be Incriminated When Sharing Files through the Cloud?

Investigation into whether it is possible to be incriminated when sharing files through Cloud Storage Services and which Cloud storage provide the best change monitoring tools.



James O'Neill

helloapps4u@gmail.com

BSc (Hons) Digital Forensics

Investigating Photographic Images from Social Media

The project is an investigation of photographic images from online social media using tools including EnCase and FTK, which can be used to analyse the data within digital files. This will be shown with the use of a new methodology to show the stages of the investigation.



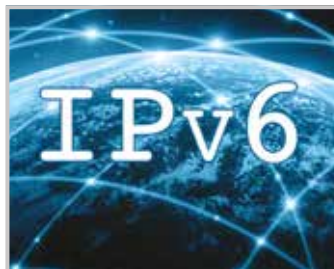
Ashley Roberts

asher1337@googlemail.com

BSc (Hons) Network Computing

IPv4 to IPv6 Migration

With a predicted 50.1Billion connected devices predicted by 2020 and an IPv4 address space of only 4.2Billion, it's evident that the businesses around the world will need to adopt the new IPv6 protocol to maintain the continued current growth of the Internet of Things.



Matthew Ryder

MattTRYder@Outlook.com

BSc (Hons) Network Computing

Migrating to IPv6

IPv6 - upgrading your business



Ravinder Samra

BSc (Hons) Digital Forensics

Investigation into EXIF Data

The project provides a review of the concerns, surrounded by uploaded images on social media websites. The focus is on the metadata found in files, specifically looking at the EXIF data and GPS coordinates found in order to help with legal proceedings.



Kevin Smith

kev1910@live.co.uk

BSc (Hons) Computer Networks and Security

Vulnerability to Networks using DoS Attacks

For my project I will be testing different types of Denial of Service attacks and Distributed Denial of Service attacks within a network.



Liam Smith

smithlc01@gmail.com

BSc (Hons) Network Computing

Impact of Security on the Performance of a Campus Network

When designing a security strategy for any network, an understanding that many security features can impact the usability, accessibility and performance of that network is essential. It is important to balance these performance drops against the risks for an unsecure corporate network.



Maxim Wilson

m.wilson@out-of-hours.it

BSc (Hons) Digital Forensics

Forensic Analysis of I2P Overlay Network

I2P (Invisible Internet Project) is one of the three anonymizing overlay networks collectively referred to as "darknet" or "darkweb". This project is an investigation of possible criminal misuse of I2P and how countermeasures can be included into standard forensic analysis process.

Web and Multi-media

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Mohammed Ali

jabir786@hotmail.co.uk
jabirali.com

BSc (Hons) Web Development

Project HASK

A security device which sends information to a server, which can be viewed by registered users.



Matthew Antley

hello@callmematt.co.uk
callmematt.co.uk

BSc (Hons) Web Development

An Internal Handover Application

The design, development and implementation of a web application to aid in the handover as part of a project's lifecycle. This project looks to create an application that will allow users to create a project and handover items that can then be assigned in order to be signed off.



Stephen Axtmann

steveaxtmann@gmail.com
steveaxtmann.me

BSc (Hons) Software Engineering

Dynamic Project Planner - 'plannr'

A system which allows users to create and share project templates with other users that have the application. These templates can then be used with the system to plan projects, provide a means of communication between supervisors and the planner, plan ahead for work that needs doing and for meetings, and more.



Shane Beeston

s.beeston92@gmail.com
www.shanebeeston.co.uk

BSc (Hons) Web Development

Can't Cook, Want to Cook

An interactive web application which focuses on a personal guide to cooking some particular recipes. It will utilize latest web technologies to increase user experience. The application will record more about the user as they use it, and feature your own chosen cooking assistant to guide the user at their own pace.



Dominic Bell

dombell27@gmail.com
www.d-bell.eu

BSc (Hons) Web Programming

Movie Recommendation Service using Facebook Integration

This project is for a service that provides tailored movie recommendations to users. By using recommendation algorithms, existing movie data and facebook account integration, it can recommend movies based on things they have already liked, mentioned and followed, as well as other facebook features.



Thomas Bickle

tom_tomompo@hotmail.co.uk
www.tomompo.co.uk

BSc (Hons) Web Development

Educational Online Multiplayer Game

An online multiplayer educational experience, to aid students learning in keystage 4 (7 - 12) and build their communication and people skills.



Ashley Clarke

me@ashleyclarke.me
http://ashleyclarke.me

BSc (Hons) Web Programming

Orkastrate: Server Orchestration and Application Deployments

Orkastrate is a web application that sets up servers (be it 1 or 1000), and automatically re-deploys applications of each change to the applications code base.



Rhys Devine-Davies

mrdevinedavies.co.uk

BSc (Hons) Web Development

Chameleon Web Controller

Understanding how second screen experiences work and utilising the latest web technologies I aim to produce a framework that will help developers build a mobile website controller that will be complemented by a first screen, helping embrace the Lean-back approach towards surfing websites.



Collum Doherty

collumdoherty7@gmail.com

www.dohertydesigns.co.uk

BSc (Hons) Web Development

Customisable Web Styling Browser Extension

The end product of my final year project is to develop a prototype browser extension which allows web users, particularly those with visual impairments like myself, to adjust the styling of any webpage to suit their visual needs.



Michael Down

mail@michaeldown.co.uk

www.michaeldown.co.uk

BSc (Hons) Web Development

Multi-platform Grocery Management and Meal Planning App

A multi-platform application to help reduce food wastage in households. The application utilizes real-time communication technologies and Geo-location based push notification features. The application allows users to efficiently create shopping lists with other members of their families/household.



Samuel Dudley

BSc (Hons) Web Development

USports

USports is a project which has been undertaken to bring university students together in the form of sport. It allows for people to get out and meet other students who are interested in the same sport but don't have anyone else to do that sport with.



David Foley

davidfoleyj@gmail.com

http://davidfoley.co.uk

BSc (Hons) Web Programming

Interactive Information Resource Creator

This application allows for a quick and easy way to create an interactive information resource in the form of a fully responsive website.



Timothy Gane

tim@timgane.co.uk

timgane.co.uk

BSc (Hons) Web Development

Track My Pet

A tracking application on the web for users to see where their pets are and have been. Delving into which mobile networks and infrastructure can be used to create the ideal device capable of sending location data in various circumstances, alongside acquiring the best value for money packet data with applied encryption.



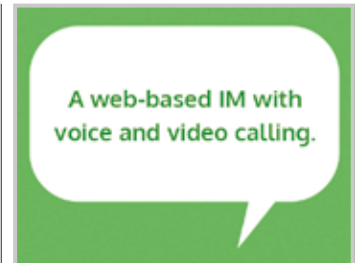
Jack Ganley

jackganley@hotmail.co.uk

BSc (Hons) Multimedia Computing

A Learning Tool to Help KS4 Students Learn about Cancer

An educational Windows 8 Application to help KS4 students further understand non-communicable diseases such as Cancer. With the use of a three dimensional human body the application allows the user to interact with body parts to find more about the selected area.



Samuel Hynds

sam@samhynds.com

www.samhynds.com

BSc (Hons) Web Development

A Web based IM Application

A web based instant messenger that aims to improve communication and productivity with a focus on cross-device UX and intuitive design. Allows users to text, call and video call their friends/colleagues and contains features such as a powerful search system, event and contact organisation and mobile device support.

YourLeave

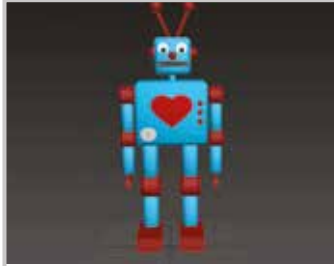
Christopher Slowik

chrisjslowik@gmail.com
www.cslowik.co.uk

**BSc (Hons) Web
Programming**

Your Leave

Your Leave is a web based leave management system which allows companies and employees to easily and effectively manage their leave anytime anywhere around the world.



Amelia Elizabeth Smith

aesmith15@outlook.com

**BSc (Hons) Multimedia
Computing**

A Multimedia Branding Toolkit

All successful companies use strong branding to form a connection with consumers. This project develops a branding toolkit that focuses on a specific area of branding towards children, creating new characters.



Ryan Thorpe

ryan.thorpe@outlook.com
www.rtwebcodein.co.uk

**BSc (Hons) Web
Development**

Innovative Online University Timetabling

The current implementation of online timetabling for students at Staffordshire University is somewhat more complex (particularly in creating semester timetables) than in reality it should be. This prototype web application provides an improved vision of online timetabling for existing university computing students.



Joe Wadsworth

river99@live.co.uk

**BSc (Hons) Web
Development**

My FoodStore

My FoodStore is a mobile web application that suggests recipes / additional ingredients / items to buy to utilise foods the user already has in their home. In addition, it also allows the user to scan their shopping, building up a database of ingredients from which the App can then make recipe suggestions.



Robert Wells

rob@robw.tf
robw.tf

**BSc (Hons) Web
Development**

Creating a Digital Audio Workstation using Web Technologies

This application can be used to create music within the web browser. It uses some of the web's newest technologies, such as the Web MIDI and Web Audio APIs. The application focuses on live performance, as well as quickly creating music.



Liam Yorke

liam@dangerliam.co.uk
www.dangerliam.co.uk

**BSc (Hons) Web
Development**

Festival Planning Application

Each year, Edinburgh hosts the world's largest arts festival, with over 3,000 shows across 300 venues. As it stands the only way to plan a visit to the festival is a map and a catalogue. Fringe planner has been designed to automate the process of planning a visit to the festival based on users' selections and interests.



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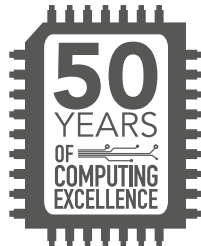
June 2016

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