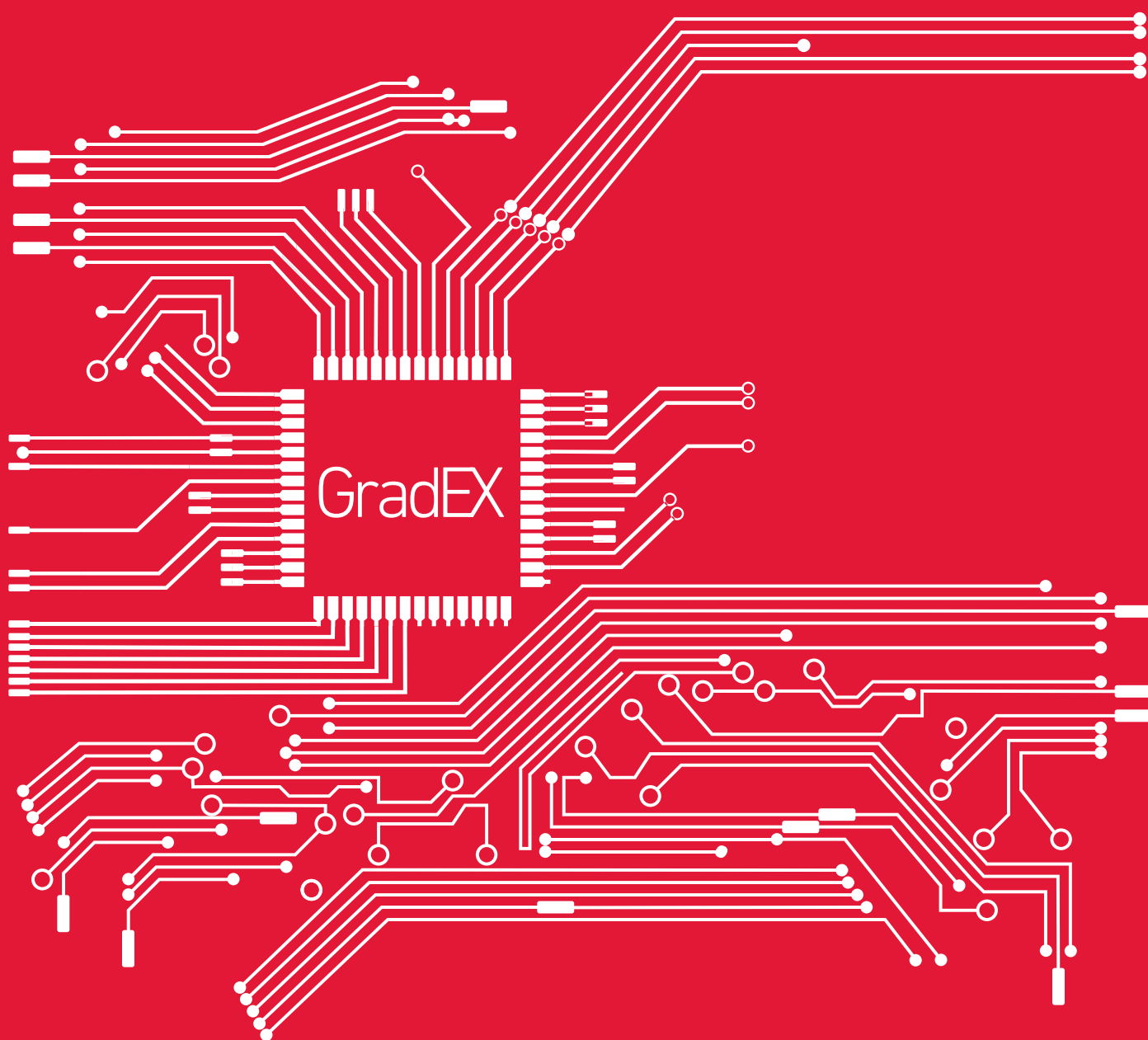


GradEX¹⁷

.....
Friday 12 May 2017



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North Staffordshire Branch

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

Welcome



Professor Liz Barnes
Vice-Chancellor

Welcome to GradEX 2017

It is my great pleasure to welcome you all to GradEX 2017, our annual exhibition of project work undertaken by final year students at Staffordshire University. This event features students from Engineering, Computing, Sciences and a range of Creative Digital Technologies. We have recently invested £40m here at our Stoke campus and at our Centre of Excellence in Stafford and Shrewsbury to ensure our students continue to have access to world-class and relevant facilities. We are committed to delivering the very best digital infrastructure for our students and I am sure you will enjoy seeing this during your visit today.

We are very proud to showcase our students and their work to prospective employers, the public, friends, family and colleagues. 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. GradEX would not be possible without the involvement of employers and every year the personal interactions that take place between our students and key industry figures result in job offers and career opportunities.

GradEX 2017 is sponsored by a range of employers and professional organisations and supported by nearly 100 judges. 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 us, I am very proud of our students and GradEX provides an excellent opportunity to celebrate their achievements. I hope you can share in this celebration and enjoy your day with us at Staffordshire University.

Contacts

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Student Recruitment and Admissions

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e: enquiries@staffs.ac.uk

www.staffs.ac.uk

Research

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Professional Short Courses in Computing, Engineering and Sciences

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Alastair Dawes

Head of Enterprise

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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 department of Computing which commenced its 51st year in 2016 in exciting new labs with the latest facilities on the Stoke-on-Trent Campus.

Joining BCS is a great idea...

As a member of BCS, The Chartered Institute for IT, you'll enjoy a huge range of benefits to aid your studies including:

- Networking opportunities
- Access to top people and latest thinking in IT
- Dedicated Young Professionals Group (YPG)
- Online Member network
- 40 UK branches and 15 international sections
- 50 specialist groups

Free online library

- Books 24/7 – 250 IT and business related e-books
- Up to 3 Forrester Research reports a month available to download
- EBSCO databases – over 9000 journals and magazines on IT and science

Online services

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- Latest IT industry news
- Upcoming events, seminars and job opportunities

Professional development

- First step towards Professional membership (MBCS)
- Recognition from leading IT organisations
- Defined route to Chartered IT Professional (CITP) status

Career development tools

- Map out your career path and discover the skills you need
- Plan the training and development you'll need to get there
- Get advice on writing CVs and letters and interview techniques
- Access the latest jobs via www.bcsrecruit.com

For more information, visit www.bcs.org

Christopher Knight Prize



In memory of alumnus Christopher Knight
Awarded by the School of Computing and
Digital Technologies

Christopher wanted to be part of the Staffs family from the first day he walked onto the campus for his interview. It remained part of his family for the rest of his life and he was proud to be asked to be a judge for the 2016 GradEX, a competition he entered whilst getting his degrees.

He remained in contact with the friends he made during his time at Uni and was always proud of Staffs. For him, 3D Art was not just a job, it was his life. He watched with interest new graduates coming through and encouraged them to work for Skills2Learn.

Christopher Knight joined Skills2Learn in August 2014 as a member of the 3D Team. He very quickly established himself as a dedicated, knowledgeable, and hard-working member of the team, rising to every challenge that was set, and going the extra mile in search of perfection. Within a few months, he had set himself apart from his peers and was identified as a suitable candidate for the roles of Lead Artist and Team Leader working directly with the 3D Development Manager on multi-million pound projects. He was always wanting to do more and continuously asking his line management if there was anything additional he could do to help. He was a selfless individual, and a valued member of the Skills2Learn team.

Sponsor



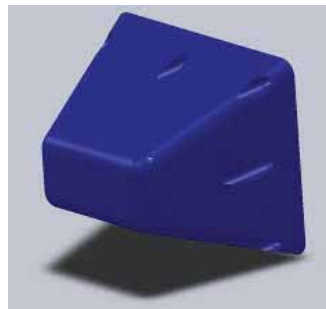
Chris Bennett

chris.cbracing@gmail.com

BEng (Hons) Automotive Engineering

Optimisation of the Formula Student Car Braking System

A research project into the potential design and manufacture of the optimal braking system for the 2017 Staffordshire University Formula Student Car.



Thomas Brookes

tom-brux@hotmail.co.uk

BEng (Hons) Automotive Engineering

Formula Student Impact Attenuator Design

An investigation into the design and production of the Impact Attenuator for a Formula Student race car, in specifically Staffordshire University's submission to the 2017 IMechE Formula Student event.



Aiden Browne

aidenbrowne@hotmail.co.uk

BSc (Hons) Motorsport Technology

Investigation into GT3 Race Car Rear Wing Shapes and Designs

An investigation into GT3 race car rear wing shapes and designs with the aim of producing a new style rear wing design to allow better performance than the wing currently being used by the Bentley Continental GT3 race car within the Blancpain GT series.



Nathan Clarke

nath.clarke.nc@gmail.com

BEng (Hons) Automotive Engineering

Rotary Valve Optimisation Utilising Variable Timing and Lift

Optimising a rotary valve engine, including a model. The mechanism (patented) changes the valves' aperture and timing. Using CAE, 1D analysis valve shaft geometry is optimised, simulating valve lift and timing. Considering if sufficient torque and power can be produced using smaller displacement engine making it as "driveable".



Matthew Clowes

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BEng (Hons) Automotive Engineering

Design and Optimisation of a Formula Student Intake System

In the Formula Student competition all gasoline engine vehicles must be fitted with a 20mm inlet restrictor to limit maximum power output. A well designed restrictor will offer the least possible resistance to airflow, whilst the remainder of the intake system can be designed to offset its effects on performance.



Khan Elahi

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BSc (Hons) Motorsport Technology

Aerodynamic Analysis of Winglets of a Performance Motorcycle

Aerodynamics plays an important role in motorsports. Motorcycle racing is considered more dangerous compared to four wheel racing due to high power to weight ratios of the vehicle which causes the power to shift to the rear wheel, resulting in wheelies. Aerodynamic development has been the solution for this problem.



Anas Haji

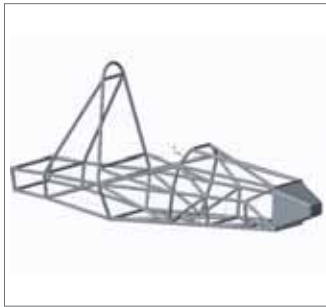
anashaji@hotmail.co.uk

BSc (Hons) Aeronautical Technology

An X-Plane Synthetic Solution for Small Flying Clubs

The use of a low cost open source flight simulator x-plane, to develop a customised, bespoke synthetic training solution for early stage PPL students at small flying clubs where the cost of a full simulator would be prohibitive. The experimental work creates a platform and airfield graphic set for incorporating into a flying club.

Aeronautical and Automotive



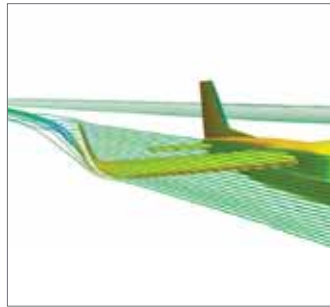
Joshua Kendrick

j.kendrick16@hotmail.co.uk

BEng (Hons) Automotive Engineering

Design and Test of Aerodynamic Underbody for Formula Student

The design and testing of an underbody aerodynamic device for the university's Formula Student vehicle, whilst following design criteria and regulations from the Formula Student team and IMechE. The aim of the device is to increase the down-force generated onto the vehicle in order to improve its performance.



Jia Jin Lee

leeben897@gmail.com

BSc (Hons) Aeronautical Technology

CFD Analysis and Design of Winglets

CFD analysis is essential to any aerodynamic field. Over the past decades researchers have been developing new ways of reducing fuel consumption for aircraft. The project focuses on aerodynamics in the aviation industry using Ansys Fluent CFD software to analyse winglets, which help reduce drag created by vortices from wingtips.



Lee Milgate

leemilgate@gmail.com

BSc (Hons) Aeronautical Technology

Fatigue in Pilots and its Effects

The project examines technology that could be incorporated into a fatigue warning system to help improve aviation safety and make all pilots aware that they are becoming fatigued. Examination of the aviation rules and of legislation are included to see if they protect pilots from fatigue to promote flight safety.



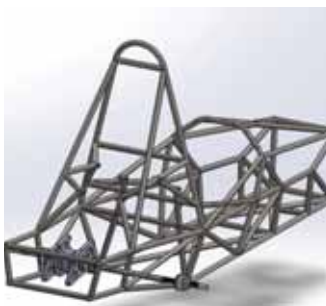
Daniel Steven Morris

d_morris95@hotmail.co.uk

BSc (Hons) Aeronautical Technology

Modifying a Gas Turbine Engine to Include a Heat Exchanger

This project will analyse the ground-breaking SABRE Engine. Along with this, investigation will be conducted into how the heat exchanger technology within it could be implemented into a modern day jet engine; such as the Rolls-Royce Trent Engine, in order to improve the overall efficiency of the engine.



Jake Nevill

jake_nevill10@hotmail.co.uk

BEng (Hons) Automotive Engineering

Formula Student Drivetrain

In order to compete in the Formula Student competition various sections need to be designed such as the drive drivetrain. The drivetrain is consisted of a differential, chain tensioner, driveshafts and constant velocity joint. The efficacy of the design constrains the overall performance of the vehicle.



Matthew Smith

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BSc (Hons) Aeronautical Technology

Investigation into Pilot Fatigue

Objectives to combat pilot fatigue and the regulations of pilot duty times and states how fatigue occurs gradually over a week or even weeks and states that this could occur with a person who does not get an enough sleep over a prolonged period of time, which could be due to jet-leg and shift work



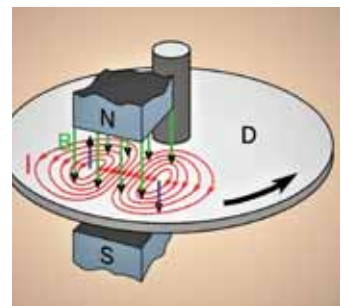
Hayden Stent

haydenstent@live.co.uk

BSc (Hons) Aeronautical Technology

Redesigning of Specific Airbus Cockpit Features

Investigation and redesigning of specific Airbus cockpit features, to overcome the confusion between flight crews and therefore minimise the element of human factors relating to future Airbus Air Accidents. The modified side-stick will include force feedback motors to provide positional awareness to the pilots.



Matthew Struthers

matthewstruthers@outlook.com

BEng (Hons) Automotive Engineering

Frictionless Braking Systems for Cars?

The Automotive industry is always looking for the next innovation, wear due to friction is a common place with brake disks and pads being some of the most commonly replaced parts, by using an eddy current based braking system no components make contact removing frictional wear dramatically.



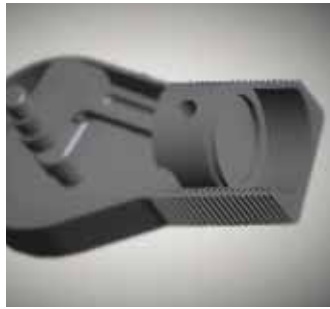
William Tomlinson

tomlinson.a.william@gmail.com

**BSc (Hons) Motorsport
Technology**

The Influence of Inlet Design on Rover 2.5 v6 Engine

The project will be to investigate the inlet manifold and then design an alternate system optimising runner lengths and airflow to gain the best results from the engine.



Rhys Williams

**BEng (Hons) Automotive
Engineering**

Study into the Feasibility of Variable Piston Geometry

This project is a study into the feasibility of variable piston geometry. Concept Creo designs will demonstrate how this idea could work. The concept will be a retro fitted straight swap for standard versions.

Biological Science



Lisa Barrett

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BSc (Hons) Animal Science with Animal Behaviour

The Effect of Students on the Activity of a White-Faced Saki

Students come into contact with both the animal and their environment; understanding the influence this has on activity will help ensure the correct techniques are used when working with the animal, and ensure a stress free environment to exhibit natural behaviours during academic studies.



Kerry Bose

kerrylbose@gmail.com

BSc (Hons) Biology

E-Stilbene Dye to Track Water and Nutrient Intake in Plants

To evaluate the use of a derivative of the antioxidant compound trans-1,2-diphenylethylene (E-Stilbene) as a photo-luminescence water soluble dye to track the uptake of water and nutrients in cloned strawberry plants.



Steven Bratt

steveb2309-misc@yahoo.com

BSc (Hons) Biology

An Investigation into the Antibacterial Properties of Garlic

Folk medicine has for many decades proposed that dietary garlic has the potential to confer a broad spectrum of health benefits. By using *E.Coli* as a test organism this study focuses upon the impact of cooking on any potential antibacterial properties by comparing the efficacy of raw and heat treated garlic.



Zoe Chambers

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BSc (Hons) Animal Science with Animal Behaviour

Predator Response in Captive Born Cotton-top Tamarins

Captive breeding and reintroduction is vital for the conservation of many species including Cotton-top Tamarins (*Saguinus oedipus*). Investigating the response to predators in captivity allows us to understand if this behaviour is present in captive born individuals to aid their survival when reintroduced into the wild.



Simon Chew

simonchew95@gmail.com

BSc (Hons) Biology

Posture: An Approach to Psychological Empowerment?

The contest for social power has evolved alongside mankind, from physical force to more subtle presently recognizable means. Posture is a key component of social power, apparent in all forms of life. From which the multi-faceted nature of the mind and body's interconnectivity may begin to be comprehended.



Ellen Devall

elliedeez@yahoo.co.uk

BSc (Hons) Human Biology

Freeze the Assumptions

From the moment fruit is picked to when it is available in the supermarket to be bought by the consumer, it could have already spent months in cool storage. By this point, "fresh" fruit might have lost the majority of its nutritional capacity. So would eating preserved fruits be a better way of getting antioxidants?



Aidan Edgeley

aidan.edgeley@gmail.com

BSc (Hons) Forensic Biology

The Effects of RNA Viruses on Honeybees

Our food production is dependent on healthy bee populations but they are increasingly being affected by a range of diseases, the most common being those caused by the *Varroa destructor* mite. This study looks at the prevalence of RNA based viruses, deformed wing virus and sacbrood virus from five different bee colonies.



Chloe Freeman

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BSc (Hons) Forensic Biology

Effect of Evidence Storage Method on DNA Profile Quality

DNA is a vital component of many criminal investigations, meaning that this evidence can be scrutinised in a court of law if not properly handled. DNA storage is crucial in the analysis process. This research aims to determine problems associated with current storage methods and suggests an alternative method.



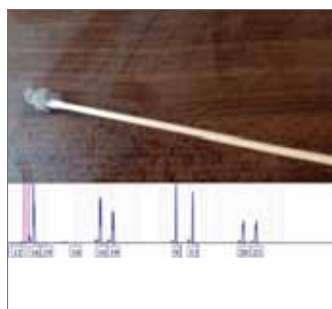
Grace Griffiths

gracegriffiths123@gmail.com

BSc (Hons) Animal Biology and Conservation

Monkeying Around: The Cause of Stress in Barbary Macaques?

Adult male Barbary macaques (*Macaca sylvanus*) exhibit signs of stress when utilising new-borns as social mediators in dyadic and triadic interactions with other males to reduce aggressive tension between them. Could negative behaviours from new-borns indicate a possible contributing factor?



Daniel Harmer

daniel_1two3@hotmail.co.uk

BSc (Hons) Forensic Biology

Does a Household's Dust Contain the DNA of its Occupants?

One component of dust is dead skin cells which should contain the DNA of whoever they belonged to. Research aimed to determine if enough DNA could be extracted from dust found in a household to identify the household's occupants as well as to see how long it took for sufficient dust to accumulate.



Danielle Hayes

danni88hayes@outlook.com

BSc (Hons) Animal Science with Animal Behaviour

Investigating the Efficiency of Vaccines in Cattle

Studying two separate groups of calves at Rodbaston Farm to see if symptoms of pneumonia (BRD) are increased without vaccines, compared to those that receive vaccines. Looking at overall weight gain and symptoms within both groups over a three month period.



James Heywood

heywood1992@gmail.com

BSc (Hons) Animal Biology and Conservation

Are all Ecotones Equal?

Ecotones are the transitional areas in which distinct biotopes are connected. Edge-effect hypothesis states biodiversity tends to be higher at habitat edges but it is necessary to ask "are all ecotones equal?" or does the habitat features and floral communities exert influence upon the invertebrate communities present?



Sian Higgins

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BSc (Hons) Animal Biology and Conservation

Variations of the Great Crested Grebe Courtship Ritual

A comparative behavioural study that aims to discover if courtship is a dominant behaviour during mating season and the relative frequencies of courtship behaviours exhibited.



Emily Hill

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BSc (Hons) Animal Science with Animal Behaviour

Burning Regimes: Natural Way to Increase Herbivore Grazing

Burning regimes have long been used to clear grazing areas in South Africa, it is thought to not only produce better grazing but also triggers the drawing in of herbivores. Further understanding this process would allow wild life reserves to provide improved grazing for their animals.



Kirendeeep Jawanda

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BSc (Hons) Biomedical Science

Do Crickets Produce Pheromone Trails in Response to Food?

This project investigates whether pheromone trails are produced by *Acheta domesticus* and *Gryllus assimilis* in response to carrots and apples. Crickets were starved for 3 days before entering a Y-shaped chamber and the number of crickets were recorded over a 20 minute period.



Kimberley Jones

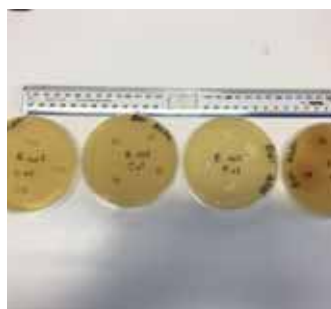
Kimjijonesx@hotmail.co.uk

BSc (Hons) Animal Science with Animal Behaviour

When Snakes Digest!

False Water Cobras (*Hydrodynastes gigas*) are a venomous species and are becoming more frequently seen in the pet trade. In the UK, snakes as pets are common but there is a lot of debate on feeding them. Does feeding a False Water Cobra different size meals effect its digestive efficiency and digestive passage rate?

Biological Sciences



Cynthia Kanu

cynthia.o1@hotmail.com

BSc (Hons) Biology

Antimicrobial Activity of Essential Oils

This project investigates the antimicrobial effect of four essential oils on gram positive and gram negative bacteria and yeast. It aims to observe their zone of inhibition and MIC, using well diffusion method and tube/agar dilution method.



Connor Malone

connor1495@hotmail.co.uk

BSc (Hons) Animal Biology and Conservation

Comparative Effectiveness of TubeTrap and Longworth Traps

A 22 day study using 20 Longworth and 20 TubeTraps assessed for any bias in species captured, body mass and recapture rates. Statistical analysis had no significant differences among the two. Similar observed values and a £31 price gap between them could indicate that there is now an alternative to the Longworth trap.



Jonathan Moore

jon.moore.birmingham@gmail.com

BSc (Hons) Animal Biology and Conservation

Pitfall Traps: Does the Hole Shape Impact Effectiveness

There's no standard size for invertebrate pitfall traps, This is problematic when collating data, the traps used will have been different sizes. This raises the question why isn't there a standard? What's the optimum size and shape? This survey, focussing on epigeous coleoptera, will look at a potential answer.



Dominic Moule

DominicMoule@outlook.com

BSc (Hons) Biology

The Effect of Immune-Challenge on Mating Behaviours

The Flour Beetle (*Tenebrio molitor*) uses pheromone signalling to identify and locate suitable mates. When presented with immune-challenged males, are females able to source a healthy mate and differentiate between a healthy male and an immunocompromised male just by interpreting pheromone signals alone?



Emma Perry

BSc (Hons) Biomedical Science

The Antimicrobial Effect of Dog Saliva from Different Breeds

To determine whether different breeds of dogs, have different antimicrobial effects on bacteria associated with skin pathogens. The pathogens to be tested against are *Staphylococcus aureus* and *Staphylococcus epidermidis*.



Victoria Pugh

vikkilouise92@hotmail.com

BSc (Hons) Animal Science with Animal Behaviour

Eurycantha Calcarata Development

Would a specific leaf diet influence insect growth? A dietary plan took place for the *Eurycantha Calcarata*. Four leaf sources given to four groups on these insects. Then monitored over a 10-week period by observing their growth rates in response to a specific food source.



Kathryn Roberts

kathryn.roberts4@ntlworld.com

BSc (Hons) Forensic Biology

The Effects of Storage on DNA Evidence

The storage method of DNA evidence for forensic examination varies between countries. In the UK, DNA evidence is frozen until the point of testing, but may undergo several freeze-thaw cycles during transit. This research examines the impact this freeze thaw process has on the quality of the DNA profile produced.



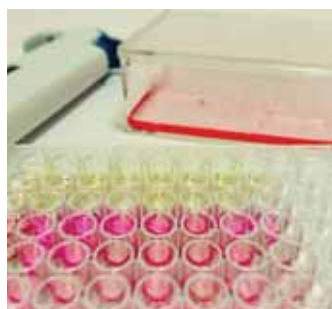
Elliot Rogers

ellrogersreps@gmail.com

BSc (Hons) Animal Science with Animal Behaviour

Is UV Lighting Essential for Captive Nocturnal Geckos?

Through the completion of my study I wish to determine whether the presence or absence of UV lighting has an effect on the activity levels of *Rhacodactylus leachianus* within captivity. There is much debate from keepers around the world whether UV lighting is essential for this species of nocturnal gecko.



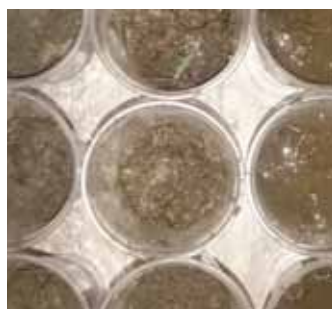
Hannah Victoria Bryony
Ruddell

hannahruddell@outlook.com

BSc (Hons) Human Biology

**Effects of Aloe-Emodin
on the Efficacy of Oral
Chemotherapy**

Digestive distress associated with colo-rectal cancer severely impacts on the quality of life in patients. *Aloe vera* products are marketed as tools to reduce this distress. This investigation aims to establish if aloe emodin (an *aloe vera* constituent) alters the efficacy of Capecitabine - a common oral chemotherapy.



Susan Siggia

susan.siggia@outlook.com

**BSc (Hons) Animal Biology
and Conservation**

**Precipitation and Soil
Nutrition**

As climate change progresses, precipitation in the UK is set to increase, but what effect will this have on the soil fauna's ability to produce nutrients essential to food production? By manipulating precipitation quantity in a laboratory setting, using nutritional analysis and taxonomy, functionality is determined.



Linda Sprudzane

sprudzanel@yahoo.co.uk

BSc (Hons) Biology

**The Effects of St. John's Wort
on Plant and Microbial Life**

Once classed as waste, pharmaceuticals have become a great concern when dealing with environmental pollution. Studies on the effect these pollutants have on human and animal wellbeing have highlighted a need for improvements being made in methods of waste disposal, and the need for greater increase in public knowledge.



Charlotte Stewart

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BSc (Hons) Forensic Biology

**Which Swab Type Collects a
Greater Amount of DNA**

Determination on wherever different swab material effects the collection of DNA after sexual assault. Using seven different swab types.



Hailey Twigg

hailey.harvey@hotmail.co.uk

BSc (Hons) Biology

**Antibacterial Hand Soaps:
How effective are they?**

Thorough hand washing is vital for infection control although there is doubt that antibacterial soaps offer superior disinfection. This was investigated using adapted standard procedures. Data presented will examine the inter-individual variability in the efficacy of antibacterial and plain soap.



Priscilla Wong

BSc (Hons) Biology

**Can Wasabi Rhizomes be an
Alternative to Antibiotic?**

This study looked at natural alternatives to antibiotics. The wasabi rhizome extract was used to assess its efficacy on Gram positive and negative bacteria by establishing MICs and zone of inhibition. A greater reduction in Gram positive microbial growth suggests a mode of action involving the cell wall.

Biomedical Science



Thaimuir Ali

BSc (Hons) Biology

The Postprandial Glycaemic Effects of Dates

Investigate the effects of dates on the starch digesting enzymes in the gut. Evidence suggests that the beneficial glycaemic effects of dates may come from inhibition of certain starch digesting enzymes. If true, dates may blunt the blood glucose curve significantly more following white bread when compared to glucose.



Jennifer Ashley

BSc (Hons) Biomedical Science

Can Oolong Tea Decrease Risk Factors for MetS?

A measure of biochemical parameters of the effects of Oolong Tea consumption in decreasing risk factors for metabolic syndrome from baseline to completion (Day 14).



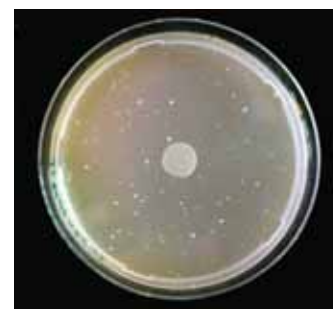
Stephen Booth

sbooth360@gmail.com

BSc (Hons) Biomedical Science

Sea Kelp Extract: Effective Weight Management Solution?

This project aimed to focus on herbal alternatives for weight management. An assessment of the use of sea kelp extract in reducing the lipids absorbed from food consumed was made by comparing the levels of total cholesterol, triglycerides, high and low density lipoproteins before and after 28 days of supplementation.



Megan Bromley

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BSc (Hons) Biomedical Science

Electronic Cigarettes: As Harmless as Water?

It is estimated that 1 in 20 adults in the UK use electronic cigarettes (EC) but are they as harmless as reported? This project is designed to use the hisG46 frame shift mutation, found within the mutant strain of *S.typhimurium*, and Ames testing to compare the mutagenic potential of EC against standard cigarettes.



Michelle Chirikure

michellechirikure@gmail.com

BSc (Hons) Biomedical Science

Do Cosmetic Products Interfere with Treatment for Acne?

A project investigating the effects of beauty cosmetic products on the growth of acne-causing bacteria and on the antimicrobial properties of topical treatments for acne vulgaris. The efficacy of the topical treatments is also investigated.



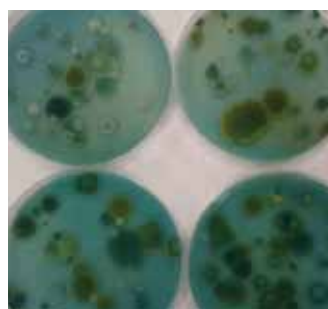
Joshua Dean

joshdean1995@yahoo.co.uk

BSc (Hons) Biology

The Effect of Antioxidant Supplementation on Muscle Fatigue

Endurance athletes are advised to take antioxidant supplements due to their ability to stabilise muscle fatigue inducing free radicals. However, recent studies have suggested increased antioxidant supplementation interferes with the long-term benefits of exercise. Too much of a 'good' thing?



Joanna Farag

BSc (Hons) Biomedical Science

Detection of *Campylobacter* on Raw Store Bought Chicken

Campylobacter jejuni and other foodborne bacteria which are found in chicken are potentially fatal to humans. There is a significant difference between the amount and type of contaminant of bacteria found on chicken depending on what retail supermarket the chicken is bought from.



Abhro Ghosal

abhroghosal@gmail.com

BSc (Hons) Biomedical Science

Investigating the Effects of Caffeine on Glucose Metabolism

This project aimed to determine how glucose metabolism can be affected by caffeine. The objectives of this project were to examine caffeine effects on glucose metabolism on adult human volunteers, above 18 years of age, to determine if taking Red Bull Caffeine can affect glucose metabolism.



Arnab Ghosal
aghosal280@gmail.com

BSc (Hons) Biomedical Science

Effect of Coffee Strength on *Daphnia*

The aim of the project was to study the effect of coffee strength on *Daphnia* under different conditions, explore the effects of caffeine on *Daphnia*, using coffee as a stimulant and determine the effects of different concentrations of caffeine on *Daphnia* in the heart rate of an organism.



Kelly-Ann Headland
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BSc (Hons) Biomedical Science

Does Residual Moisture Affect Microbial Levels on the Hands?

Hand hygiene is one of the most important measures to avoid the transfer of potentially harmful bacteria. Research suggests residual moisture can determine the level of bacterial and viral transfer following hand washing, so if the hands are not dried sufficiently, is there much point in drying them at all?

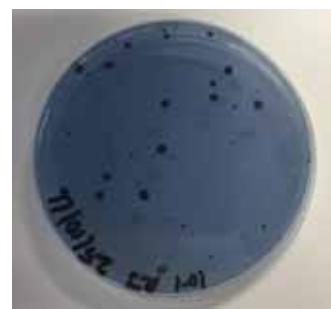


Samuel Holmes
holmesest.1995@gmail.com

BSc (Hons) Biomedical Science

Effect of Aloe Vera Supplements on Cardiometabolic Parameter

Aloe barbadensis Miller has been shown previously to provide significant anti-inflammatory effects to mammals. Cardiovascular disease has been shown to have a certain component of inflammation secondary to oxidative stress and some beneficial physiological effects with regard to cardiovascular disease protection.

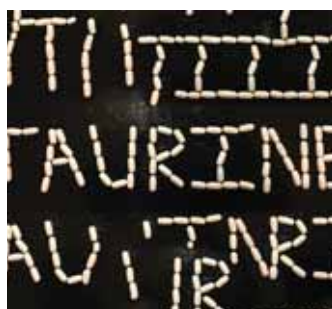


Ruhana Jeeta

BSc (Hons) Biomedical Science

Plasmids and Oral Microbes

The human oral cavity is home to a huge number of microbes. My project is centred on saliva samples, to then identify any possible antibiotic resistance bacteria (with focus on *streptococci*), and make a connection between bacterial plasmids and associated antibiotic resistance genes.

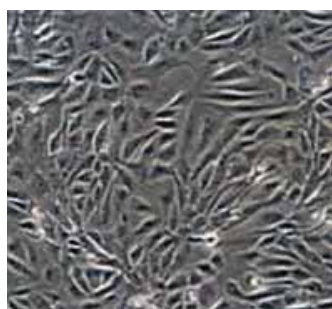


Henna Khan
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BSc (Hons) Biology

Taurine: Potential New Treatment for Cardiovascular Diseases

Cardiovascular diseases (CVDs) are a common, disabling and costly disease, taking the lives of more than 1 in 4 people in the UK. Animal studies have shown the taurine can reduce symptoms of CVDs. With further advanced research and human studies, using taurine could be a new and inexpensive way forward to treat CVDs.



Jansher Khan
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BSc (Hons) Biomedical Science

Can Mystery Antibiotic & Vitamin be a Cure for Cancer?

The antibiotic Ciprofloxacin and Vitamin E are hypothesized to have certain anti-cancer factors such as inducing the formation of toxic oxygen free radicals, causing oxidative stress leading to apoptosis. As a synergistic treatment this could revolutionize the way in which certain cancers could be treated.



Evie Lambert
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BSc (Hons) Biology

Apigenin and Cancer: Friend or Foe?

Recently, apigenin, a flavone, has received increasing interest due to its demonstration of anti-cancer activity. Apigenin however has shown paradoxical dose-dependent effects. Tumour-promoting concentrations of apigenin may therefore have the potential to decrease the efficacy of chemotherapeutic agents.



Natalie Lear
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BSc (Hons) Human Biology

Are 'Superfood' Smoothies as Beneficial as We Think?

'Superfood' smoothies are said to be packed full of antioxidants which are beneficial to human health. This study focuses on discovering whether consuming these has a measurable difference in blood plasma antioxidant level and compares it to standard orange juice that is known to have this effect.

Biomedical Sciences



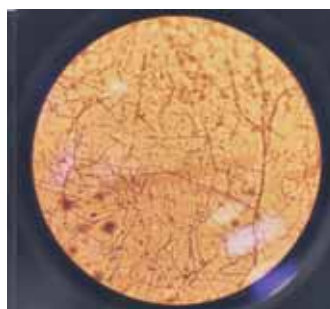
Jamie Loftus

jamiecloudloftus@hotmail.com

BSc (Hons) Human Biology

A Scientific Approach to Alternative therapies

Alternative therapies are becoming increasingly recognised to influence mood and brain performance. Despite this, they are often looked upon with scepticism. This study looks to analyse the effect of aromatherapy on reaction times and short-term memory, producing reliable data to be drawn upon in the future.



George Machin

george.machin@ymail.com

BSc (Hons) Biomedical Science

Listerine Foot Bath; Home Remedy for Fungal Nail Infections?

The prevalence of fungal nail infections is increasing as well as the cost of prescription drugs to treat them. The proposed research aims to identify whether or not Listerine mouthwash and one of its active ingredients, Thymol, is effective in inhibiting the growth of the causative organism *Trichophyton rubrum*.



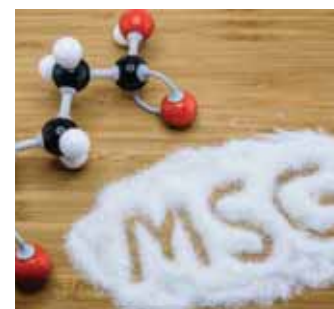
Burhan Mohamud

burhan334@hotmail.com

BSc (Hons) Biomedical Science

The Effects of *Salvadora Persica* on Drug Resistant Bacteria

An investigation into the use of *salvadora persica* against drug resistant strains of bacteria. With a global rise in resistance to antibiotics, the use of traditional medicines to treat drug resistant strains of bacteria as a substitute for antibiotics or an auxiliary treatment with antibiotics might be the answer.



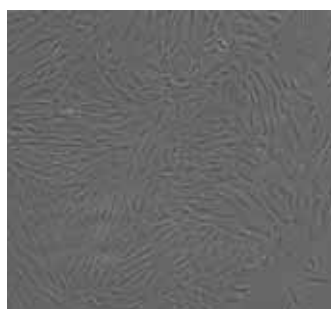
Bashaer Moledina

bashaerr@gmail.com

BSc (Hons) Biomedical Science

MSG - the Silent Killer

Monosodium glutamate is a common additive in almost all foods that is affecting our health and treatment options in many ways. This project looks at its effect on colorectal cancer and how a diet with and without MSG impacts chemotherapy.



Ian Muusha

ianmush@icloud.com

BSc (Hons) Biomedical Science

Direct Effects of Caffeine on Preadipocytes' Metabolism

Caffeine is the most widely used drug in the world. Many investigators have demonstrated that caffeine, one of the main constituents of coffee, has a variety of cellular responses in the biological systems. Using sensitive assay tests could help us understand the effect caffeine has on fat cell metabolism.



Dennis Nyabezi

dovetee@gmail.com

BSc (Hons) Biomedical Science

Synergistic Effect of Flavonoids and Chemo Agents on Cancer

Studies have shown flavonoids can prevent or eradicate cancer when taken in diet or used in therapy. My aim was to combine in synergy a flavonoid quercetin and a chemo agent doxorubicin in different doses to target cancerous human TC-7 cell lines to determine the effects.



Ife Owolabi

ifeowolabi14@gmail.com

BSc (Hons) Biomedical Science

Can Oranges Reduce Blood Pressure?

High blood pressure is a disease that can lead to other more severe disease so finding ways to reduce blood pressure is essential especially for people of Afro-Caribbean descent as they are typical more susceptible. Oranges contain moderate levels of nitric oxide which is known to promote vasodilation of blood vessels.



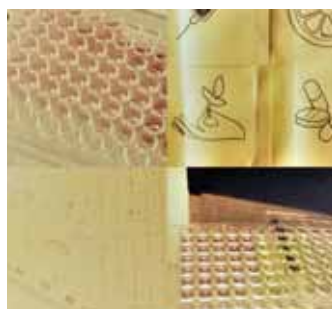
Charlie Parton

charlie-j-p@hotmail.com

BSc (Hons) Biomedical Science

E-Cigarettes - A Question of Safety

E-Cigarettes or "E-Cigs" are a new phenomenon touted as a "healthier alternative" to conventional cigarettes. My project aims to show that there are concerns hiding in the chemical composition of your saliva and that we should question whether or not e-cigarettes are really safer to use than ordinary cigarettes.



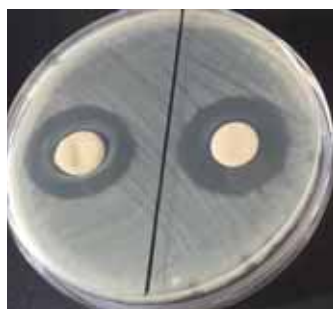
Lucy Pye

lucyjaynepye@gmail.com

BSc (Hons) Biomedical Science

Naringenin: Flavonoid for the Future of Yeast Infection Cure

Antimicrobial resistance is becoming a threat to human health. Prolonged use of antifungals has led to the development of multidrug resistance. The discovery that a naturally occurring compound found in grapefruit, Naringenin, has antifungal characteristics could be the answer to our problem.



Maryam Saleh

Maryamsaleh27@gmail.com

BSc (Hons) Biomedical Science

Antimicrobial Effects of Essential Oils

Investigation of the antimicrobial effect of five essential oils on three gastrointestinal pathogens. Agar disc diffusion assay was carried out to measure zones of inhibition and a broth dilution method was used to find the MIC and MBC of essential oils.



George Shu

gevorakshugeorge@yahoo.com

BSc (Hons) Biomedical Science

Cinnamon: The Complementary Therapy for Diabetes?

The adherence to conventional medicine to treat diabetes are poor due to vigorous protocols and side effects of medications. This has paved the way for the use of complementary and alternative medicine (CAMs). Cinnamon as an example of a CAMs, is 'claimed' to prevent and improve the lives of type 2 diabetic patients.



Ben Simpson

BSc (Hons) Biology

The Effect of Lipids on Absorption of Sugars

The project aims to explore the effects that dietary lipids have upon the absorption of sugars into the blood.



Rebecca Simpson

r.m.simpson93@gmail.com

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.



Salima Tawab

TawabSalima@gmail.com

BSc (Hons) Biomedical Science

Bacterial Diversity in Ethnic Skin Types

Intra- and interpersonal bacterial diversity is dependent on the ecology of the body site and environmental factors. There are differences between ethnic skin types however research is limited on whether ethnicity can determine skin microbiota. The project investigates *staphylococcus*, *streptococcus* and general bacteria found on the skin.



Andria Theodoulou

a.theodoulou@hotmail.com

BSc (Hons) Biomedical Science

Allium Species: The New Era of Antibiotics

Antimicrobial resistance is a worldwide concern which rapidly increases. Allium species are monocotyledonous flowering plants which contain active agents useful in traditional medicine. The investigation aims to determine the antimicrobial activity of Allium species on Gram-positive and Gram-negative bacteria.



Catherine Wheat

catcat2379@aol.com

BSc (Hons) Biomedical Science

The Effects of UVC Light as a Successful Biocide

Since the 19th century, Ultraviolet radiation has been used successfully as a sterilisation method. Using three microbes, this experiment will compare exposure times and comparisons will be made to see if changes in the length of exposure are needed depending on the structural differences within the cell wall.

Computing and Information Systems

Sponsor

ACH Crisford Charitable Foundation

Andrew Crisford is a
Computing graduate from
Staffordshire University



Omer Adia
omeradia88@gmail.com

BSc (Hons) Applied Computing Social Network Communities Grow Through Viral Marketing!

Social network communities grow through viral marketing. Members invite their friends, and therefore it is possible to reach many people with a limited marketing budget. A website for the Sudanese Community in Stoke-on-Trent will be developed providing information that they would expect to find through a community website.



Louis Bennett
louisbennett11@gmail.com

BSc (Hons) Digital Forensics GoPro .mp4 Repair Tool

A file header stores the parameters of the file. Without a file header, the file will not be useable. This project attempts to automate the replacement of a damaged file header with that of a working one to restore functionality to corrupt or unreadable files.



Jack Campion
jcampion18@gmail.com

BSc (Hons) Applied Computing Creating an Application to assist with Ideation

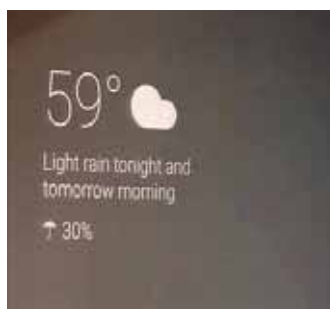
An application developed to help university students find and decide on a project topic.



Demetris Demetriou
tzimis12@hotmail.com

BSc (Hons) Computing Science Windows 10 Penetration Testing

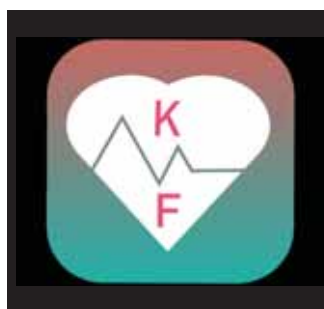
The purpose of the project is to study Windows 10. Identifying and exploiting potential vulnerabilities and flaws residing in the OS. New and persistent vulnerabilities will be explored and a recommendation guide will be created detailing how to mitigate the vulnerabilities.



Jacob Knapper
Jacobknapper@gmail.com

BSc (Hons) Applied Computing Multi-user Smart Mirror with Integrated Computing

As technology advances, people are becoming more reliant upon it for self-organisation. However, it can be a time-consuming process to check multiple organisational tools. Therefore, this project set out to create a product that would help to increase productivity by incorporating technology into a household mirror.



Kwabena Kumi
kobby101@hotmail.co.uk

BSc (Hons) Information Systems Information System for Inferring Health in a Work Setting

Companies that tend to improve the health of employees thorough physical activities and healthy living yield healthier employees. This reduces sick leave and boosts productivity. The project creates an information system that can be used to report upon physical performance of a person using wearable technology.



Harry Mooney
mooney894@hotmail.com

BSc (Hons) Web Development Web Platform

A platform where server owners can enable the acceptance of donations/ payments to help with server costs. At the moment, Minecraft server operators must manually add players to the database to give VIP status or special access to features relating to the amount they paid.



Aaron Poyser

azza_poyser@hotmail.com
www.edusource.co.uk

BSc (Hons) Applied Computing

Edusource: A Novel Web Resource Platform for School Teachers

Edusource provides a functional teaching platform where users can download weekly structured resources, lesson plans and previews. All content is free for commercial use and has been custom made to maximise a teachers understanding of the Key Stage 1 computing curriculum.



Sania Safdar

saniasafdar72@yahoo.co.uk

BSc (Hons) Applied Computing

E-Learning to Teach Religious Festivals Via E-Book

The purpose of this project is to develop an E-Learning E-Book which will cover the subject of religious studies. The E-Book will give the opportunity to Key Stage 2 primary school students to learn in an interactive way.



Guisseppe Silba

BSc (Hons) Computing Science

Asset Management System

An IT Asset Management Application to maintain tangible assets within an organisation. Including the management and updating of assets and the option to book out devices, such as iPads, to monitor bookings and device locations.



Jordan Dace Stokes

jordanstokes1993@hotmail.co.uk

BSc (Hons) Applied Computing

Booking System Solution for the Visually Impaired

The purpose of this project is to investigate methods that increase website accessibility for the visually impaired and to discuss how they can be implemented and improved.



Daniel Tunnicliffe

tendo2810@gmail.com

BSc (Hons) Applied Computing

Online Weight Management and Information Site

I have created a website which allows users to speak to like-minded people about weight loss. Shared experiences will help users to find the motivation to continue with weight loss progress.



Jon Watt

jon.watt2010@hotmail.co.uk

BSc (Hons) Computing Science

A Cloud Based Recruitment CRM Solution

There has been a need to manage customer relationships since businesses started to sell products. CRMs are often thought of as dull, complex, expensive and difficult to install and maintain. This project delivers a minimal cost solution that removes the complexity and streamlines the processes for the recruitment industry.



Alexander Williams

BSc (Hons) Applied Computing

Meeting Room Booking System

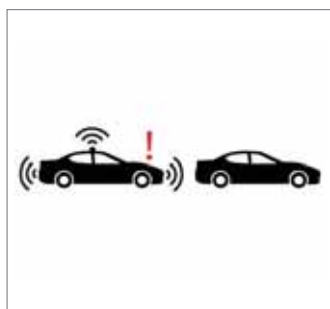
An intranet based web application which allows users to search for and book meeting rooms. The system enables a variety of business types to keep their meeting room arrangements organised.

Computer Science and Software Engineering

Sponsor

ACH Crisford Charitable Foundation

Andrew Crisford is a
Computing graduate from
Staffordshire University



Junaid Ali

BSc (Hons) Computing Science Augmented Reality Application for Testing Highly Autonomous Vehicles

An Android mobile application that uses augmented reality to aid in the testing of an autonomous car in different conditions and mixed (real and virtual) environments. The test engineer can select a test from a list of pre-defined car tests that can be deployed and viewed through an augmented reality display.



Shahzad Bari

shahzadb146@gmail.com
www.shahzadbari.co.uk

BSc (Hons) Software Engineering Integrated Exam System (IES)

The Integrated Examination System (IES) software program is developed to support ICT management team in the school organisations so that they don't have to spend a lot of time setting up computers individually in the event of an exam session or any computerised classroom assessments.



James Black

jamesblacksoftware@gmail.com

BSc (Hons) Computer Science An Embedded Security System

Crime is an unfortunate fact of life, but losing everything in a burglary doesn't have to happen. Using industry standard sensors and technologies an embedded, standalone, security system will be produced. It will allow an environment to detect trespassers, thereby protecting a home.



Wayne Corbett

waynealancorbett@live.co.uk

BSc (Hons) Computer Science Child Internet Safety

A low-cost network administrative tool to enable parents and carers to monitor and control children's internet use from a range of devices.



Thomas Cummins

Cumminsc9@Hotmail.co.uk
http://tcummins.co.uk

BSc (Hons) Software Engineering Lucee 5 Line by Line Performance Profiler

Application servers can suffer heavily from unoptimised code, causing bottlenecks, and slow execution times, all resulting in bad user experiences. Therefore, by profiling each line of code that is executed we can visually represent bottlenecks to developers.



Edward Fox

edwardjfox@outlook.com
edwardjfox.co.uk

BSc (Hons) Computing Science Social Media in VR: Everyday Web Data Viewed in VR

Social Media has permeated every aspect of modern life, regardless of location or hardware. New technologies such as Virtual Reality have moved into the mainstream within the couple of years. How these services are implemented into VR could open the door to new interactions and experiences and engage new demographics.



Samuel Harriott

samuelharriott@gmail.com

BSc (Hons) Computer Science Bone Recognition System for Accidental Discovery of Remains

This project was originally designed to identify different skulls found at archaeological sites. This turned out to be unfeasible however, as this is a very specialised field. After further research, it was discovered members of the public accidentally stumble on remains therefore a tool could be developed for this.



Tom Hughes

tomtomtomtom1994@live.co.uk

BSc (Hons) Software Engineering Building Software Really Fast

Continuous integration is now widely practiced however, as the team size and the code base grows, it can become harder to keep integrating continuously. This project looks at ways in which tools can help overcome the problems with practicing CI on a large scale such as keeping the build fast.

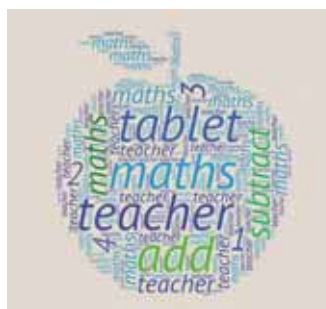


Shane Hulligan

s.hulligan@hotmail.co.uk

BSc (Hons) Software Engineering Real-time Visualisation of Terrain

Real-time visualisation of massive terrain has become widely used in the field of military simulation, flight simulators and so on. Rendering a large amount of data as a 3D landscape is impossible. Therefore, a level of detail (LOD) algorithm is an efficient way to process the large amount of data.



Ruth Langhorn

BSc (Hons) Applied Computing Help Teach Primary Mathematics using a Mobile Application

A mobile application prototype will be built to deliver a select part of primary school Key Stage 2 mathematics. This will be an educational product for use by teachers to assist in the teaching of mathematics at Key Stage 2 for primary school pupils that enables them to work at their own pace on a mobile device.



Giovanni Lenguito

giovanni16.gl@gmail.com
www.giovanlenguito.co.uk

BSc (Hons) Software Engineering Track: A Cloud-Based Train Booking Solution

Track is a smart cloud-based train booking solution. With its simple design, users can find trains, see arrival & departure boards, see station messages and like journeys. Track delivers recommendations based on a comparison of travel patterns of similar users, all designed to save you time.



Tia Merriles

tia.merriles@sky.com

BSc (Hons) Computing Science Walkies: A Dog Walking Application for Android

An interactive Android application for dog walking that improves the dog walking experience for dogs and their owners. Users can see their walk on a map in real-time, along with other useful information such as the locations of other dog walkers, so that they can be greeted or avoided.



Jack Mullin

BSc (Hons) Computing Science Can Using Wireless Device Technology Improve General Fitness?

Using two devices, an Android Wear smartwatch and a smartphone the application allows data from the hardware sensors to calculate various properties and information that can be relayed to a smartphone using Bluetooth or NFC.



Anil Rahman

anil_0000@hotmail.co.uk

BSc (Hons) Software Engineering The Benefits of a Java Visual Editor for Education Purposes

A web application that allows the user to generate Java code from drag and drop blocks. This enables young programmers to structure their code and create working classes.



Ryan Robinson

BSc (Hons) Computer Science Autopilot - Labview

An autopilot system in Labview to control the direction of an aircraft in real-time. The system will continue to adjust movement variables of the aircraft to reach a destination. A configuration system for destinations will control the direction and altitude, compensating for turbulence and other in-flight variables.

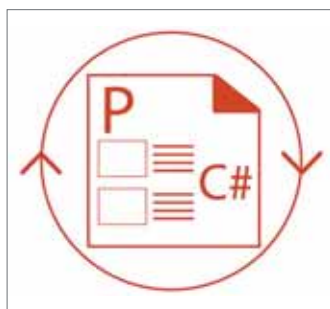
Computer Science and Software Engineering



Rupen Sampang Rai

BSc (Hons) Computing Science**Visual Character Identification**

Visual Character Identification is a project based on LabVIEW, where the program captures or scans text from an image and outputs the result as a voice message.



Aaron Shenton

BSc (Hons) Applied Computing**Conversion of PowerPoint Content into Visual C#**

This project will convert PowerPoint content into a Windows Forms Application (C#) by reading slides, shapes and text contained within PowerPoint slides. Content will convert into Visual C# interfaces and functionality. The project aims to provide code automation to save time and boost efficiency.



Richard Singer

BSc (Hons) Computing Science**Musician Helper Application**

A generic mobile helper / teaching application, to aid the development and accelerate the learning of musicians.

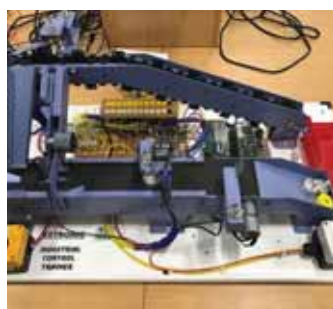


Inderjit Singh

singh400@hotmail.com

BSc (Hons) Computing Science**Nuisance Calls on Smartphones**

Designed using Xamarin Android and Microsoft Azure. This project uses a social circle to quickly and efficiently filter out nuisance calls. The key feature being a blacklist of nuisance phone numbers that can be easily shared amongst friends and family.



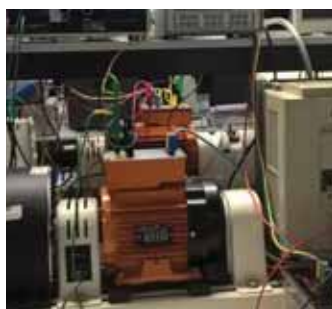
Martin Wiseman

martin.wiseman@outlook.com

BSc (Hons) Computer Science**Production Line Interface System**

A control system for a production line. The system will use sensors, solenoids and electric motors to assemble an object. A microcontroller will be used to interface with the Bytronic industrial control trainer. The system will be able to detect if any errors occur during the assembly of the object.

Sponsor

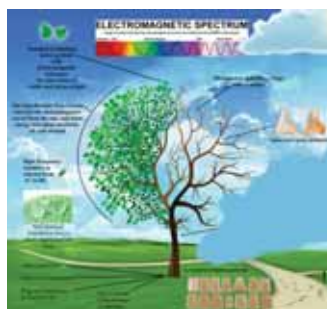
Institution of
MECHANICAL
ENGINEERS


Khalid Alabdulwahed

BEng (Hons) Electrical Engineering

Protection System Investigation in 3- Ø Induction Motor

This project basically examines the protection requirements for three phase induction motors, by simulating the Squirrel Cage induction motor located at Staffordshire University (R118) and recording the behaviour in different conditions. It will also investigating how protection can be carried practically and theoretically.



Abdullah Alatawi

abdullah.atawi@gmail.com

BEng (Hons) Electrical Engineering

Energy Harvesting Technology

The project focuses on energy harvesting technology and its applications, the project will develop one area of energy harvesting with a small scale of prototype to simulate the real application.



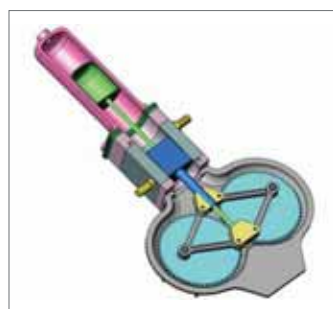
Hussam Altakroni

tkhuss11@gmail.com

BEng (Hons) Mechanical Engineering

Liquid Air Energy Storage

Study of Liquid Air Energy Storage (LAES) system and its importance in energy storage. A small scale system (10 KW) is proposed with working parameters. Working conditions can be adjusted according to equipment performance. In addition, equipment technical review and sources of purchase and pricing of equipment.



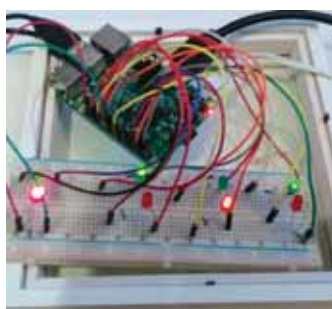
Richard Barnett

richjbarnett@hotmail.com

BEng (Hons) Mechanical Engineering

Design and Manufacture of Stirling Engine

The design and manufacture of a hot air Stirling engine to generate electrical power from a variety of heat sources including waste heat.



Mark Beardmore

markybeardmore23@gmail.com

BEng (Hons) Electrical Engineering

Tracking Trucks - An Accessible Economical Tracking System

Some delivery companies can't justify expensive tracking software, annual fees and the equipment to go along with it. This alternative affordable system displays half hourly checks on which deliveries are 'on time' or 'late', by using an LED display that can be hung on the wall and a low requirement Android app.

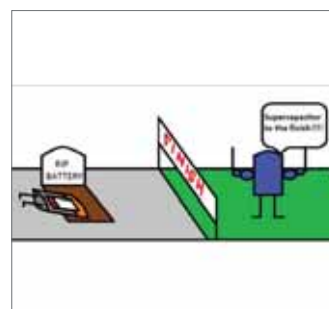


Georgo Blesson

BEng (Hons) Mechatronics Engineering

Hand Gestured Quadcopter

New era of Quadcopter has already risen but the way that quadcopters are controlled has stayed the same. This project explores different ways of controlling Quadcopter, specifically controlling a QuadCopter using hand-gestures. This project uses Kinect in combination with Crazyflie 2.0.



Suraj Deshini

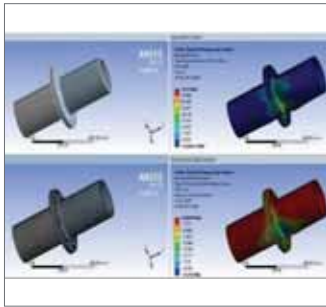
suraj.deshini007@gmail.com

BEng (Hons) Electrical Engineering

Electrical Energy Storage

The project focuses on the use of a super capacitor in order to create an electrical energy system. It mainly focuses on showing how a super capacitor could replace batteries in the future.

Engineering and Design

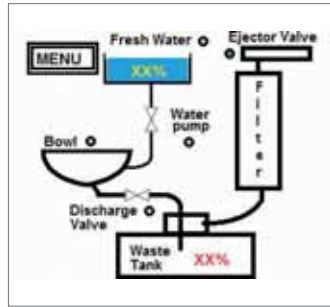


Mandlenkosi Dewa

BEng (Hons) Mechanical Engineering

Stress Analysis and Leakage Prediction in the Flanged Joint

The non-gasketed flange joint is modelled and simulated using finite element analysis based ANSYS Software, for both internal pressure and external bending loading conditions in order to investigate the stress field and any leakage condition.



Robert Ellis

BEng (Hons) Electronic Engineering

Obsolescence and Reverse Engineering of a Toilet Controller

What to do when a supplier can no longer provide that much needed part? One option is to reverse engineer the product, providing the original functionality plus incorporation of latest standards and enhancements.

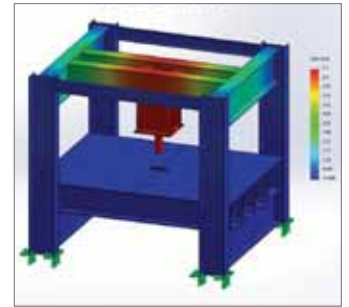


Amr Elsonbaty

BEng (Hons) Mechanical Engineering

Feasibility Study of the Use of 100% RE in Egypt

The project aims to find the perfect feasible scenario of Egypt running on 100% Renewable Energy in aims of reducing the carbon footprint, levels of pollution and provide Egypt with a reliable source of energy and break down the expenditure of applying the perfect scenario.



Joshua Evans

evsy17@hotmail.com

BSc (Hons) Manufacturing Technology

Design, Test & Gain Verification on a Test Rig

A work-based project to design, test and gain verification on a test rig for product development. The test rig will simulate vehicle loading on steel covers, applying loads in line with British Standards BS EN 124 for access covers and gully grates.



Thomas Fox

tom_fox_12@btinternet.com

BEng (Hons) Mechanical Engineering

A Modular Power Generation and Storage System for Emergency

A stable electrical supply is essential for workers responding to major emergencies. This project has developed a design concept for a system, which uses a range of renewable power sources to fulfil a range of power generation requirements. A single module, utilising solar and wind power, has also been developed.



Andrew Fraser

Andyfraser93@gmail.com

BEng (Hons) Mechanical Engineering

Flexible Spinal Protection

As wearable technology becomes more popular, devices that can protect a user from injury have great potential for a variety of applications. This project in particular aims to use Non Newtonian shear thickening fluids to adapt current safety devices used by motorcyclists to allow a safer, more comfortable experience.



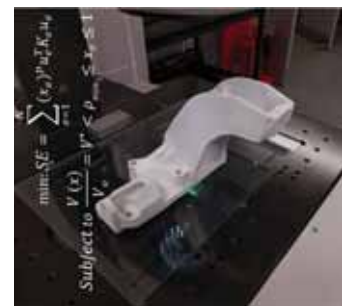
David Galvao

david_dwg@hotmail.com

BEng (Hons) Mechatronics Engineering

Robotic Mimic - Arm

Robotic Mimic - Arm is an advanced robotic arm, that mimics the movement of a human arm with seven Degrees of Freedom, with the aim to perform different and dangerous tasks for different industry's sectors by improving work performance, Health & Safety at work and explore new fields where robotic arm can be applied.



Steven Goodwin

steven.goodwin@outlook.com

BEng (Hons) Mechanical Engineering

Physical Realisation of Optimised Design

Reverse engineering, design optimisation, and AM are disciplines in their own right. It is the combination of these technologies where new, exciting possibilities are realised. Structural parts can be given enhanced characteristics whilst maintaining the products original criterion, fully utilising freedom of design.



Thomas Harding
thomasjh365@gmail.com

BEng (Hons) Mechanical Engineering

Investigation into Topology Optimisation and its Application

Structurally optimised designs are common in the modern world. Combined with Additive Manufacturing, complex designs can be produced in a way that traditional manufacturing techniques cannot compete against. An investigation into the applications of topology optimisation when combined with AM equipment was carried out.



Thomas Jones
tom.j.tom@outlook.com

BEng (Hons) Mechanical Engineering

Water Cooling Unit Design

Designing a barrel water cooling unit for one of Xtrutechs powder coating extruders. Typical powder coating extruders operate at around 120 to 150 °C depending upon the mix. It is crucial not to overheat the powder coating as this would make the batch unusable which is why barrel cooling units are so important.



Malay Patel
malaypatel803@yahoo.com

BEng (Hons) Mechanical Engineering

Study of Bio Fuelled Stirling Engine Technology in mCHP

The main focus in the project is to use Bio-fuel for mCHP Stirling Engine for domestic purpose up to 5 kW. Also, on the current mCHP Stirling engines available in market.



Edward Pattillo

BEng (Hons) Mechanical Engineering

Enhanced Oil & Gas Recovery Methods (EOR & EGR)

With high levels of global hydrocarbon consumption, supply of oil and gas must be readily available. Through reservoirs worldwide becoming more and more depleted in terms of natural recovery, there is a much greater requirement for enhanced, tertiary, recovery methods.



Terence Roberts

BEng (Hons) Electronic Engineering

Valve Pre-Amplifier

Today's resurgent interest in music albums recorded onto vinyl has driven the need for high quality amplifiers specifically created for the purpose. This pre-amplifier is based upon thermionic valve technology and is designed to obtain the best possible sound reproduction from this increasingly popular medium.

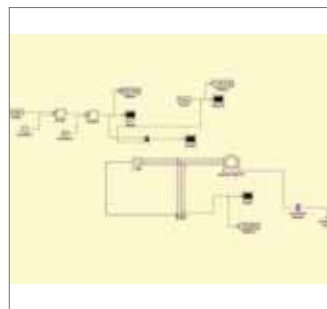


Razvan Romila
romilarazvan@gmail.com

BEng (Hons) Mechanical Engineering

A Feasibility Study into Energy Storage using Liquid Air

This project is looking into the feasibility study, technical challenges and operational barriers of air liquefaction and storage using a renewable technology (e.g. wind turbine) and power generation by expansion of the air as and when it is required.

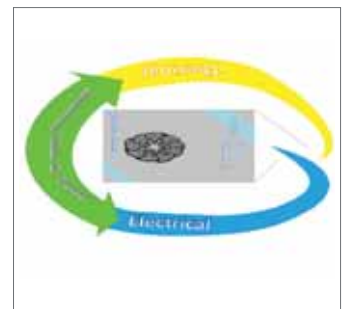


Apolonaire Tchichi Forkwe

BEng (Hons) Electrical Engineering

Investigate Starting Characteristic of Rotating Machines

Investigating the starting characteristics of 3-phase rotating machines with focus on 3-phase squirrel cage induction motor. Data will be collected from modelling and simulations in PLECS including practical testing with specific focus on its starting characteristic to demonstrate its performance characteristic.



Michael Yacoub
mike7y@hotmail.com

BEng (Hons) Mechanical Engineering

Reviewing and Designing a Biofuel Oriented Micro CHP Turbine

A review of microturbine technology for domestic combined heat and power applications done in parallel to an investigation into biofuels with the end goal of designing a microturbine that primarily makes use of biofuels. Furthermore, mCHP products in the market will be studied by means of the techno-economic analysis.

Film



Jack Allen

jackallenbcfc@hotmail.co.uk

BSc (Hons) Digital Film and Post Production Technology

Aegean

A short film set during World War 2, paying homage to the tale 'Thesus and the Minotaur'. Rather than focusing on Thesus' adventure, we focus on his father, Aegeus who is a WW1 veteran. My main role will be editor.



Carl Allinson

carlallinson@outlook.com

<https://vimeo.com/user62133302>

BSc (Hons) Film Production Technology

Highwood (Short Film)

Welcome to Highwood, the scene of a crime which prompts Detective Inspector Deanna Mills to investigate the actions and psychology of a troubled hotel worker. Though he denies insanity, he recalls his crimes with such sickening pride that one is left doubting not only his mental stability, but his humanity.



Sion Campbell

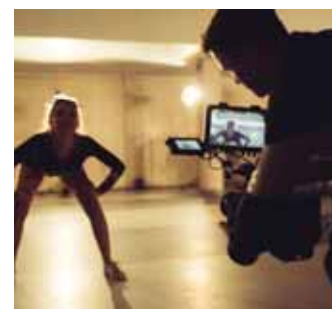
sion.campbell@hotmail.co.uk

<https://vimeo.com/user32388106>

BSc (Hons) Digital Film and Post Production Technology

Product Advertising

My project is the creation of two advertisements for a Watch Product. They will be targeting different audiences, and showing the different ways to advertise a product. This builds on my dissertation, which investigates producing professional advertising content.



Liam Claridge

liamclaridge@hotmail.com

<https://vimeo.com/liamclaridge>

BSc (Hons) Film Production Technology

Cinematography Showreel

A range of music videos and short films compiled together, focusing on how different cinematography techniques affect certain projects, and the importance it has on an audience's perception.



Jade Ehimatie-Brown

jadeosaye@yahoo.co.uk

www.artstation.com/artist/jadeosaye

BA (Hons) VFX: Visual Effects and Concept Design

MALICE: Cinematic Parallax Matte Paintings

A collection of matte paintings portraying the fantasy and ultramodern world of 'MALICE' through an animated and imaginative way of storytelling. The creation and animation of the paintings will be created using Adobe Photoshop, Adobe After Effects and Paint Tool SAI.



George Francis

gjiggyclicque@yahoo.com

www.gjiggy.com

BSc (Hons) Film Production Technology

Post-Production Workflow in Film

My project investigates the anomalies of today's Post Production Workflow and its challenges with the current constant technological changes in shooting formats, codec etc. all of which can have a positive / negative impact on the final edited masterpiece viewed in cinemas worldwide.



Sophie Green

sophiegre2612@gmail.com

BSc (Hons) Digital Film and Post Production Technology

Synthwave Music Video for Artist Timecop1983

Music Video for a synthwave artist Timecop1983. A surreal, neon, black light, UV, colourful stylistic production highlighting components of the 80s and the new hyper-real concepts of film and music video and how the two have combined to form this new age of music video.



Richie Howle

richiehowle@yahoo.co.uk

BSc (Hons) Film Production Technology

Aegean

'Aegean' is a drama I have written and produced. Set in 1939 and filmed in Wales, it is a modern adaptation of 'Thesus and the Minotaur'. We follow Aegeus (father of Thesus) who has to deal with his son leaving home to serve in World War II.



Yuanming Huang

yellowming19@hotmail.com

BSc (Hons) Film Production Technology

Slow Motion: Frame Rate, Shutter Speed and Light in Filming

In film, slow motion technique is popular and helps enhance the audiences' viewing experience. Although frame rate, shutter speed and lighting are three simple elements in slow motion technology, they are still very important in camera work also.



Joseph Lister

Joseph.Lister@live.com

BSc (Hons) Digital Film and Post Production Technology

Life of a Student (Music Video)

This music video for the song "Satellites" by Khaos Motion portrays many of the things a student will do over the three years they are at university. Correlating images and text will be cut in time to the music.



Tanatswa Mungwira

BSc (Hons) Film Production Technology

It Came From Below - The Death of Film

Film is forever changing to fit with the times. Films like 'Toy Story' gave rise to 3D animation in film, gaming and TV. In the last 20 years, it has subtly eroded the 2D art form. Why? 3D animation takes less time, money and often allows for more creative control.



Giorgia Perini

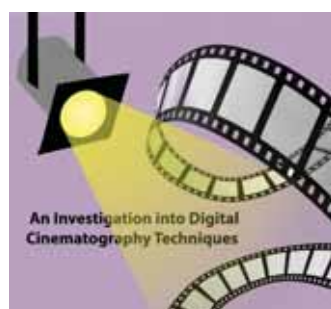
robadahitchcock@gmail.com

<https://vimeo.com/user35181490>

BSc (Hons) Digital Film and Post Production Technology

Investigation into the techniques used in Fashion and Beauty Advertising

How many fashion advertisements do we watch in one day? Advertising needs to be unique, especially in contemporary consumer culture where the image is more important than the objects it promotes.



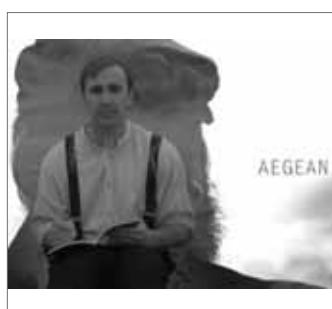
Kathryn Pogue

katy.k@hotmail.co.uk

BSc (Hons) Film Production Technology

An Investigation into Digital Cinematography Techniques

A study into how the internal cameras work and how they interact with light through testing them in a number of scenarios. Footage obtained from the work carried out with Staffs TV, Smiling Elf Productions and work carried out on the course to achieve the variety of formats to provide examples of the lighting styles used.



Charles Rowlands

charlesrowlands@hotmail.com

<https://vimeo.com/user14552082>

BSc (Hons) Film Production Technology

'Aegean' – Adaptation of 'Theseus and the Minotaur'

Made in collaboration with fellow students, 'Aegean' is a 30-minute, micro-budget film shot on location in Shell Island, Wales. A different take on the Greek Myth, the film follows Theseus' father, Aegeus and family, as they struggle with Theseus leaving home to fight in the Second World War.



Niamh Thompson

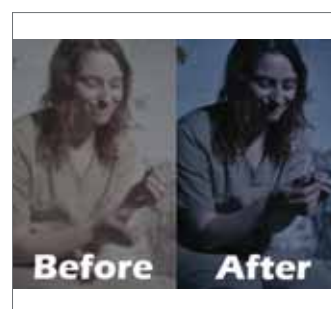
niamhothompson@gmail.com

niamhthompson.carbonmade.com

BSc (Hons) Film Production Technology

An Investigation into the Packaging of a Script

An investigation into the packaging of a short film script focused on the inclusion of women in the film industry, both in front of and behind the camera.



James Todd

jamestodd1000@hotmail.co.uk

BSc (Hons) Digital Film and Post Production Technology

Colour Grading Showreel

My showreel aims to show my colour grading skills and the work I have completed on multiple projects over the last year. The show reel will allow the viewer to compare original and colour graded images.

Film



Hollie Turner

hollievfilm@hotmail.com
www.hollievfilm.com

BSc (Hons) [Top-up] Film Technology

Sia 'House on Fire': An Investigation of Live Music Visuals

A music video by definition is a short film piece that integrates music with imagery. Inspired by the current themed existing series of visuals by music artist Sia, 'House on Fire' is a music video featuring a contemporary dancer performing in the rooms of a grungy hotel.



Rose Webber-Joyce

rose-wj94@hotmail.com

BSc (Hons) Film Production Technology

What Contributes to the Success of a Production?

My project investigates what makes a production original and successful. I will look at how cinematography, colour, sound design are used and how each aspect contributes to an engaging product that audiences enjoy.



Calum Woodward

caljwoodward@gmail.com

BSc (Hons) Film Production Technology

Short Horror Film

I will be writing and producing a short horror film that uses various techniques employed by reputable filmmakers of the genre. I picked horror because I am interested in how the genre reflects culture at particular times in history.



Mia Jane Abbott

miaabbott96@hotmail.co.uk

BSc (Hons) Forensic Science

Presumptive Testing Methods for New Psychoactive Substances

New Psychoactive Substances (NPS) or "legal highs" have recently become controlled under the Psychoactive Substances Act 2016, but no presumptive tests are being frequently used in the UK. This project focused on producing a presumptive testing method for mephedrone using common presumptive colour tests, GC-MS & FTIR.



Eunice Adegboye

BSc (Hons) Forensic Investigation

Persistence of Fibre

This project is mainly to detect the persistence of fibre in the filter and drum of washing machine and also on a garment.



Alice Anderson

aeanderson@hotmail.com

BSc (Hons) Forensic Science

Submerged Latent and Blood Fingerprint Development

This experiment was conducted to establish which development techniques are the most reliable to obtain identifiable latent and blood fingerprint evidence at different times submerged in a natural river environment.



Natalie Atkinson

natalie.louise.atkinson@outlook.com

BSc (Hons) Forensic Investigation

Persistence of Bodily Fluids on Fabrics Post Submersion

Blood and semen are present in many criminal offences such as sexual offences. A range of presumptive and confirmatory testing methods were used to determine the limit of detection of bodily fluids post submersion.



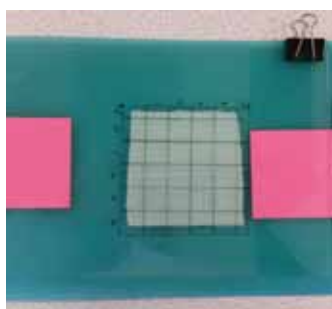
Zakharri Barker

zakbarker@msn.com

BSc (Hons) Forensic Investigation

Blood Pattern Analysis: Experience Required

Blood pattern analysis is used to identify the actions and movements that occur from the first moment of bloodshed. Analysts use their knowledge and experience to identify the patterns and interpret the actions that led to its deposition. Using an SOP could result in accurate evidence that is more sustainable in court.



Jake Baylis

jake.baylis.01@gmail.com

BSc (Hons) Forensic Investigation

The Persistence of Fibres in both Moving and Still Water

The aim of the research is to determine the persistence of polyester fibres on a variety of fabrics including fleece, sports t-shirt, denim, velvet and carpet over a 4 week period when submerged in moving water (River Trent) and still water (Laboratory).



Thomas Bird

taga.bird@yahoo.co.uk

BSc (Hons) Forensic Science

A Study Examining the Transfer and Persistence of Touch DNA

Touch DNA is often found at crime scenes at low levels. This study was carried out to evaluate the persistence and transfer of touch DNA, while also determining whether any individual other than the last person to come into contact with an object provides the dominant DNA in the profile.



Thomas Blohm

blohm2303@gmail.com

BSc (Hons) Policing and Criminal Investigation

Police and Crime Commissioners = Greater Accountability?

For nearly 50 years, the tripartite structure set a framework of accountability in policing. This changed following the election of Police and Crime Commissioners in 2012. Given an extensive remit to hold Chief Constables to account, it is important to evaluate whether PCCs are achieving what was expected of them.

Forensic, Policing and Criminal Investigation



Kimberley-Ann Booth
Kim-x-booth@hotmail.com

BSc (Hons) Policing and Criminal Investigation

Human Trafficking in the UK

Human Trafficking is one of the toughest hidden crimes to beat; the victims can be anywhere and everywhere, hidden in plain sight. With world leaders coming in to fight against the crime, just how effective is Britain's legislation and policy in this fight?

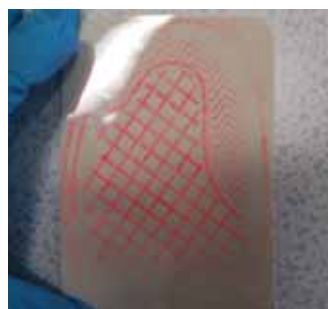


Nos Boyce
lilos.boyce@hotmail.com

BSc (Hons) Forensic Science

Shooting Incident Reconstruction with a Total Station

Shooting incident reconstruction plays an important part in forensic science. During this project, a Total station was used to measure the distance of two types of fired shotgun cartridges in relation to the location of the muzzle of the shooter, this can be used to determine where the shooter was positioned during a shooting.



Kassandra Bratt

BSc (Hons) Forensic Investigation

Collection and Storage of Footmarks

Research into the environmental conditions used when collecting and storing footmarks when using gelatin lifts with the use of florescent powders to identify an ideal method for the process of Footmarks. Further concentrating on the idea of using gelatin lifts without an acetate sheet and how this can be effected.



Leah Bushby
leah.bushby@live.co.uk

BSc (Hons) Forensic Investigation

Persistence of Lip Marks Submerged in Aquatic Conditions

An investigation, into the persistence of lip marks. Whether different aquatic conditions, lip products and exposure times will affect the rate of degradation. If any significant alterations to lip characteristics will impact the ability for identification using a grading system.



Ting Ting Chu
ttchu8@gmail.com

BSc (Hons) Forensic Science

Abundance of Primary Biogenic Decomposition Amines in Water

There is a paucity of information about the natural abundance of the primary biogenic amines cadaverine, methylamine and putrescine in different water courses. This work aimed to detect the natural background levels of these biogenic amines in water samples taken from lakes and rivers around Stoke-on-Trent (UK).



Christina Cohen
chrissee.cohen95@yahoo.co.uk

BSc (Hons) Forensic Investigation

Factors Influencing Forensic Entomology

My project has been carried out to determine which factors influence Forensic Entomology, from disposal method to decomposition. I chose this topic because I was intrigued by decomposition but once I discovered flies and their life cycle I became fascinated with eggs and maggots and my interest has grown substantially.



Matthew Costello

BSc (Hons) Forensic Science

Persistence of Non-Controlled Drugs on a Garment

In the world of forensic science it is unknown if a drug will stick to a garment after someone has interacted with it. Caffeine is a drug that used as a cutting agent that with most drugs so if someone is manufacturing an illegal drug caffeine is the drug that they are most likely to have touched.



Jessica-Annie Cox
jessicaannie1994@gmail.com

BSc (Hons) Forensic Investigation

The Recovery of Latent Fingermarks Using Household Products

Recovering latent fingermarks, using aluminium powder, from a glass slide when different types of household products have been used, to see if there are any differences in the fingerprint quality.



Jessica Crossland

Jessicaanniecrossland@gmail.com

BSc (Hons) Forensic Investigation

Detection and Forensic Evidential Value of Tattoos

An investigation to show the influence of burning and decomposition upon temporary and permanent tattoos as a means of visualisation in a forensic identification context. Four different types of tattoos, temporary and permanent endured different conditions before being examined using alternative light sources.



Laura Cummings

laura18cummings@yahoo.co.uk

BSc (Hons) Forensic Investigation

Persistence of Fibres on Window Frames and Sill

Prolific offenders do not leave DNA or finger marks at points of entry but fibres are unavoidable. However police do not tape lift for fibres as they believe that fibres do not persist. During this project it has shown different fibre types persists over 4 hours on a Window and Sash.



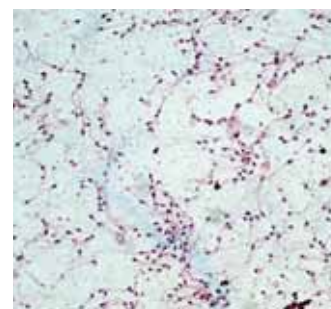
Dillan Davies

dilanski@live.com

BSc (Hons) Forensic Investigation

Testing Transfer Rates in Forensic Disk Imaging

This project aims to investigate if the forensic disk imaging process can be expedited through the use of solid state drives as the image destination. Both forensically sound, and forensically unsound methods are used in this testing to see how this impacts any improvements found.



Laura Denton

lauradenton5@gmail.com

BSc (Hons) Forensic Investigation

Comparison of Swabs for Semen Recovery in Sexual Assaults

Seven different swab materials have been tested in their capacity to capture and release semen. This is to identify the optimal swab material for the purpose of collecting semen from sexual offence victims. These findings could impact on the future forensic regulations for the examination of victims of sexual assault.



James Duffy

j17uffy@live.co.uk

BSc (Hons) Forensic Investigation

Can Mobile Devices Influence Future Forensic Photography

Can mobiles influence forensic photography? Yes, by testing the camera on the latest device, using hardware specific for mobiles, in controlled scenarios. To assess if they match up to the current Digital SLR's or to a point where they can be used forensically and ultimately creating an addition tool for Investigators.



Joshua Fell

fell.josh1996@gmail.com

BSc (Hons) Forensic Computing

Secure Disposal of the Contents of a Mobile Phone

This project evaluates the effectiveness of current tools that claim to securely erase the contents of a mobile phone. It will detail the effectiveness of tools for both Android and iOS before developing a tool to erase the contents securely.



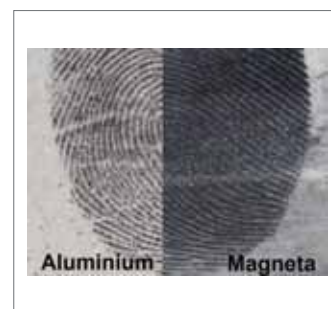
Faye Garwood

faye_garwood@hotmail.com

BSc (Hons) Forensic Investigation

Vehicle Collision Reconstruction Methods Used on Motorways

Vehicle collisions occur all the time, so it is important that the documentation and reconstruction methods are accurate, precise and up-to-date. By carrying out research and practicals, the current reconstruction methods are compared and analysed. What is the best reconstruction method for collisions on motorways?



Hayley Geach

hayleygeach3@hotmail.co.uk

BSc (Hons) Forensic Investigation

Fingerprint Recovery at Crime Scenes: A Validation Study

The composition of a fingerprint can alter over time due to factors such as substrate type, temperature and humidity. By validating current development and recovery techniques in accordance with ISO 17020, the research may establish the best approach for Forensic Investigators, allowing them to obtain optimum results.

Forensic, Policing and Criminal Investigation



Jessica Gill

jessgill1609@gmail.com

BSc (Hons) Forensic Investigation

The Effect on Pork Samples of Burial in Cement

An investigation that examines decomposition rates using pork samples. A control sample was compared to samples which were fully encased in cement and different factors were looked at such as weight loss across all the samples as well and sodium, potassium and calcium levels, to see if this had an impact on the rate.

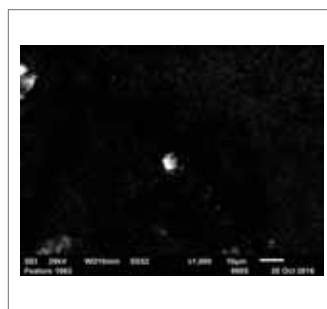


Lincoln Gombedza

BSc (Hons) Policing and Criminal Investigation

Child Sexual Exploitation Perpetrators

Child Sexual Exploitation (CSE) is a heinous crime that destroys the lives of young victims and their families. Due to the seriousness of this crime, sexual exploitation of children has attracted attention from the media and policy makers, thus, invoking debates across the spectrum on how to best protect vulnerable victims.



Josh Hill

Josh.Hill.14@live.co.uk

BSc (Hons) Forensic Investigation

Transfer & Persistence of Gunshot Residue within the Police

Gunshot residue particles are incredibly small and can find themselves scattered in every direction, passed on via contact between two surfaces and have been the leading evidence for conviction based on just ONE particle. With the assistance of Staffordshire police, this study looks at how far a GSR particle can travel.



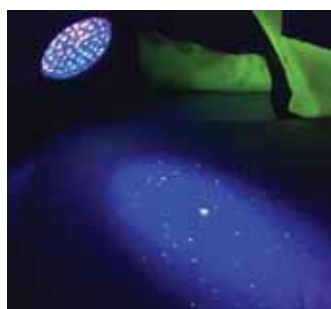
Bethany Jones

bethjones295@gmail.com

BSc (Hons) Forensic Investigation

Fingerprint Development Using Different Powders, Gels & Tapes

A validation project for Staffordshire Police showing the effects of temperature, humidity and substrate type on fingerprint development using different development powders, different lifting gels and tapes.



Zoe Jones

zoe.jones246@hotmail.co.uk

BSc (Hons) Forensic Investigation

A Validation Study for Fibre Retrieval by Taping

Warwickshire & West Mercia police force are currently applying for accreditation through ISO 17020 and have prioritised fibre evidence. A validation study has been completed investigating the efficiency of two types of tapes and methods for fibre retrieval and identifying the effects of surface type and temperature.



Megan Jukes

megan.jukes@outlook.com

BSc (Hons) Forensic Biology

Can Swab Type Effect DNA Collection?

In sexual offence cases, DNA is one of the most important evidence collected, this evidence may give a profile of the assailant which can be run to get a match as well as linking the assailant to the victim. But is the industry standard swab type the best suited to collecting this evidence?



Christine Kelly

krysyk555@gmail.com

BSc (Hons) Forensic Science

Reduction of Contamination in Forensic Medical Examinations

Testing of the specimen capture device for forensic medical examinations to determine whether there is a reduction in the contamination of evidence from the low vagina to the high vagina, in comparison to the speculum.



Anita Kwokori

a.kwokori@hotmail.co.uk

BSc (Hons) Policing and Criminal Investigation

Domestic Abuse: A Gender Issue?

Male victims of domestic abuse aren't recognised and it is considered to be a female victim situation. This study aims to examine whether there is gender bias held within society and the police and if so, how this affects their response towards male victims of domestic abuse.



Amy Lightfoot

amylightfoot1993@gmail.com

BSc (Hons) Forensic Investigation

How Accurate is the Health Data Retrieved from Fitness Watch

When you mention digital forensics, people tend to initially think about child pornography, trafficking and identity theft. However it covers a much broader spectrum. This research aims to investigate whether the health data located on smart phones and fitness watches could accurately be used in criminal investigations.



Aypril Loines

ayprill@hotmail.co.uk

BSc (Hons) Forensic Investigation

Comparison of Fuel 3D & Photography for Evidence Presentation

An evaluation of the Fuel 3D Scanner and the comparison of 3D Images against conventional photography for use as evidence in court. Comparing the use of 3D imaging and photography when presenting evidence, which method is more evidential including the pros and cons of each method when used in different scenarios.



Lance Malcolm

lance.malcolm@hotmail.com

BSc (Hons) Forensic Investigation

Development of Fingermarks using Fluorescent Wet Powder

The aim of this research is to demonstrate that the new fingermark developer, Supra Nano Fluorescent Wet Powders, are fit for purpose within West Midlands Police Fingerprint Development Laboratory for use on plastic evidence drawn from all crime types.



Chelsie Maxwell

chelsie_maxwell@hotmail.co.uk

BSc (Hons) Forensic Science

Contamination Reduction during Sexual Offence Examinations

This research examines the potential for contamination to occur during a sexual offence examination. Two sample collection methods were compared - a standard speculum and an alternative method (specimen capture device). This research aims to improve confidence in the results obtained during sexual offence examinations.



Danielle McBride

danielle.mcbride@hotmail.co.uk

BSc (Hons) Forensic Investigation

Evaluation of Heat Associated Fractures on Porcine Dentition

Human identification is one of the most important elements within forensic investigations. Teeth are one of the most resilient elements in the human body, they are able to offer the possibility for the recovery of any genetic material and can help investigators understand the circumstances surrounding various fire scenes.



Holly Mills

holliiepopftw@hotmail.co.uk

BSc (Hons) Forensic Investigation

Logging a Crime Scene Electronically

Time management is a key aspect within forensics as you only have a limited time to try and collect all the evidence to determine what took place. Using an application and utilising technology, having a positive impact on collecting evidence may be achieved when logging a crime scene.



Tim Mussellwhite

tmussellwhite@hotmail.co.uk

BSc (Hons) Policing and Criminal Investigation

A Game of Drones: Policing the Future of UK Airspace

The uses for drone technologies are growing rapidly with agriculture, media and criminal justice sectors all taking advantage of their simple controls, their lightweight manoeuvrability and the advancements of HD cameras. The uses and potential uses for drones within the police and around police investigations are vast.



Stuart Nagington

stuart_nagington@outlook.com

BSc (Hons) Forensic Science

Chemically Mapping Synthetic Cathinones

A mephedrone standard was analysed using both GC-MS and FTIR to produce a chemical map and identify distinguishing chemical features. Spectra obtained from the analysis of seized substances were then compared to this map to identify variations in their chemical structure.

Forensic, Policing and Criminal Investigation

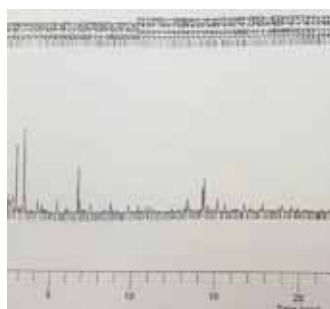


Antony O'Rourke

BSc (Hons) Forensic Investigation

Transfer of Friction Ridge Detail through Examination Gloves

The research aims to determine if commonly used examination and household gloves (nitrile, vinyl, latex and rubber) are effective at reducing the transfer of friction ridge detail onto different substrates. Gloves were worn for a period of 35 minutes, then a MultiForce Fingerprint Sampler was used to deposit fingerprints.



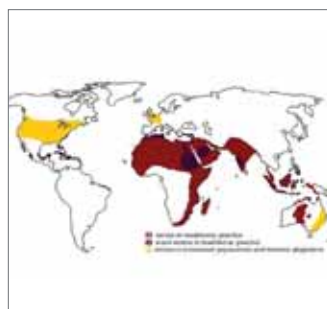
Amy Osborne

amy.osborne14@sky.com

BSc (Hons) Forensic Science

Effect of Pyrolysis on Fire Debris Analysis

This project investigated whether there is any potential for interference to be produced by the pyrolysis of woods paints and varnishes, and would this interference lead to complications in determining if a fire accelerant was present in the fire scene.



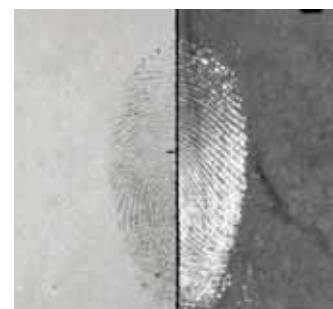
Holly Palmer

hopal1993@gmail.com

BSc (Hons) Forensic Science

Decomposition of Porcine Tissue Containing Henna Tattoos

Study of the decomposition of Porcine Tissue containing various types of Henna tattoo and the extent to which the citric acid enhanced henna blends fluoresce via detection by Visual Spectral Comparator and can be identified throughout the various stages of decomposition.



Lucy Powell

BSc (Hons) Forensic Investigation

A Comparison of DFO and Ninhydrin on Latent Fingermarks

DFO and Ninhydrin are both development techniques which can be used to enhance fingermarks. Both of these techniques can either be used on their own or in sequence with one another. It was compared which process provided the best quality marks, varying the time in-between deposition of the marks and first treatment.



Muhammad Riaz

muhammadriaz04@outlook.com

BSc (Hons) Policing and Criminal Investigation

Links between Terrorism and Transnational Organised Crime

The project involves the examination of the links between Terrorism and Transnational Organised Crime (TOC) it will focus on how both groups work together for their own interests and the impact of those activities on the UK, therefore to understand how effective are UK's legislation and practice to tackle those risks.



Rachel Roberts

rachelroberts63@gmail.com
rachelroberts63@gmail.com

BSc (Hons) Forensic Investigation

Determination of a Shooter's Position

To determine if there is any correlation between the lateral angle at which a 12 gauge shotgun is fired and the destination of the fired cartridges and wadding. To find any pattern that may be present to estimate where the shooter stood.



Emily Roberts-Moore

emily_victoria@hotmail.co.uk

BSc (Hons) Policing and Criminal Investigation

How Technological Advances have Affected Child Exploitation

To determine if Child Sexual Exploitation is happening more online than offline.



Constance Rowland

BSc (Hons) Forensic Investigation

Development of a Prototype Under-Suit for Major Crime

Contamination prevention is crucial at a crime scene. Fibre contamination can come from the most unlikely of places such as a Scenes of Crime Officer (SOCO) under-clothing. To prevent this type of contamination occurring, appropriate fabrics have been tested that have low sheddability, transfer and persistence to produce an under-suit.



Elli Sarvari

ersarvari@bellsouth.net

MSci (Hons) Forensic Investigation

Victim Journey Experience when Reporting a Sexual Offence

The number of sexual offences committed are on the rise, thus the importance of the support available for victims has become more evident. This is due to the nature of the crime and its impact on the victim's life. Current support services were evaluated, including public awareness of the support accessible.



Amelia Sharp

ameliaes@hotmail.co.uk

BSc (Hons) Forensic Investigation

Can Bitemark Evidence be used in a Court Of Law?

Studying the use of bitemark evidence within the Forensic field and its credibility within the legal justice system, through anonymous dental stone casts and bitemark impressions on synthetic skin. The result will be discovering any identifying factors to determine to whom the impression belongs.



Emily Snell

blue_emi@hotmail.com

BSc (Hons) Forensic Science

The Heat Damage Properties of Different Fabrics

Research into how fabrics react to the application of heat is limited, and there is no objective way of measuring heat damage. This project attempts to fill in the gaps by subjecting ten different fabrics to a source of heat and measuring the damage caused to create objective scales.



Rebecca Stanfield

rebeccapstanfield@gmail.com

BSc (Hons) Policing and Criminal Investigation

The Threat Posed by Terrorism

I have examined secondary research to determine the real threat posed by terrorism and the effect that this threat has had on policing strategy since 9/11. I have also determined whether or not these changes are attributed to 9/11, or whether there are other external factors that will influence the changes.



Jack Thompson

jack201100354@gmail.com

BSc (Hons) Forensic Science

A Study into the Commonality of Fibres in British Clothing

In this project, a database of different garments has been made to give an insight into the commonality of fibres in British clothing, the purpose of this project is to ascertain how common a certain fibre type is a population of garments, or in a specific garment itself. This study is based on that of Grieve in 1997.



Shauna Tyldesley

Shauna_t07@hotmail.com

BSc (Hons) Forensic Investigation

Analysis of Inflicted Trauma at the Rate of Decomposition

18 pork rib belly samples where used in this project, three different trauma types where inflicted on these. Blunt force trauma, sharp force trauma and saw trauma. Samples where then buried and some left out open to the elements. To see how the decomposition had affected the trauma and why.



Jessica Wakefield-Baugh

JessJayneBaugh@gmail.com

BSc (Hons) Forensic Investigation

Effectively and Accurately Mapping Oswiecim Jewish Cemetery

Jacek Proszyk, a religious studies specialist was appointed to record Oswiecim Cemetery in 1995. He created an inventory and map. This is the only documentation of the site. The map itself is not accurate, missing out some gravestones. Could this have been done more effectively to ensure no loss of information?



Kerry Willis

kwillis89@hotmail.com

BSc (Hons) Forensic Investigation

The Presentation of Fingerprint Evidence in Court

Fingerprints are a common type of evidence found at a crime scene, and are therefore almost always included in a case. With randomly selected jury members and the use of complex terminology. Do the jury understand the evidence they are being presented with? And would they feel confident enough to question it?

Forensic, Policing and Criminal Investigation



Mustafa Yorgandji

amy.osborne14@sky.com

BSc (Hons) Forensic Investigation

Can the Techniques Used to Find a Missing Child be Improved?

The aim of this project is to indicate whether or not current techniques and methods used for missing children's cases can be improved. Throughout this project vast amounts of research has been carried out via the use of desk based research as well as carrying out interviews with current and ex-police officers.



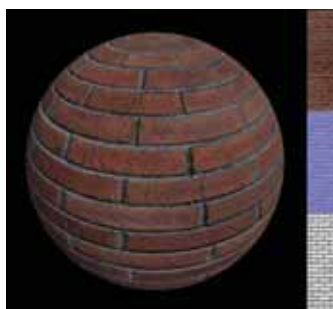
Edward Barons

edwardbarons@googlemail.com
www.artstation.com/artist/
edwardbarons

BSc (Hons) Games Concept Design

Emulating an Art Style: Hearthstone

A series of illustrations and designs made with the intention of fitting in with a specific recognisable art style, in this case, Blizzard's Hearthstone. The illustrations consist of some new imaginings of existing animals, characters and objects from the 'World of Warcraft' universe and some completely original designs.



Jordan Beaven

jordanbeaven@gmail.com

BSc (Hons) Games Concept Design

Environmental Textures and Narrative

Environmental storytelling has become an integral part of games, whether it is for the main plot or to reward observant players. I have looked at how textures can be used within a horror environment to aid in telling the story and to add a feeling of suspense and isolation.



Ellen Bloomer

ellenniamhbloomer@gmail.com

BSc (Hons) Games Concept Design

Abyss Animation

I have created a 2D animation using oil paints on glass. I have explored the subject of death through symbols from different cultures and religions in the style of a poetic documentary. My animation has a strong focus on natural imagery to represent death.



Josh Chrich

chrchjosh@gmail.com

BSc (Hons) Games Concept Design

Battle for the Red Sector

My project combines World War 2 and the Cold War with retro futuristic ideas and sci-fi design. Three factions are fighting to take over the red sector, either to protect it, destroy it or consume it. My project focuses on character and environment concept design for an action role-play game.



Chris Clemes

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http://chrisclemes1.wixsite.com/
portfolio

BSc (Hons) CGI and Digital Effects

Architectural Visualisation

An architectural visualisation of a kitchen. The object is to explore the use of realistic modelling, texturing and lighting in order to achieve photorealism using V-Ray and 3DS Max. Other software used in this project include Photoshop, Nuke and Marvelous Designer. The kitchen is based on real world reference images.



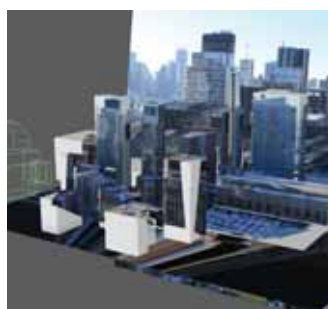
Dominic Coyle

dominic_j_c@hotmail.co.uk

BSc (Hons) CGI and Digital Effects

Haunted Ship Battle

Inspired by the 'Pirates of the Caribbean' films, two haunted ships battle it out to the bitter end. My project utilises a wide range of FX work to create an epic battle with a huge amount of destruction. The FX work created using the software package Houdini.



Adan Currey

adancurrey@hotmail.co.uk
www.adancurrey.co.uk

BSc (Hons) Digital Film and 3D Animation Technology

The Aftermath

A VFX composite consisting of projections, photo manipulation and dynamics which aims to show the aftermath of a post-apocalyptic world. By photo manipulating a still image and using projections I have turned this into a moving shot as well as adding small dynamic pieces to create realism.



Terence Hughes

terence.hu.th@googlemail.com
https://uk.linkedin.com/in/
terence-hughes-4a3b01129

BA (Hons) VFX: Visual Effects and Concept Design

Cyberpunk Samurai

I am creating a cyberpunk samurai within ZBrush. I will add clothing using Marvelous Designer and refine within ZBrush. Texturing will take place in Substance Painter. Once completed, I will add post effects in Photoshop to give it a modern, polished look fit for industry standards.

FX



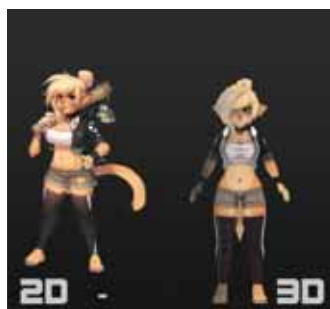
Connor Kelley

connorliamkelley@hotmail.co.uk
www.connorkelley.co.uk

BSc (Hons) Digital Film and 3D Animation Technology

Connect to Infinity

3D product marketing is becoming more of a necessity in modern day media. My project aims to provide an example of photorealistic 3D rendering. I have demonstrated this by producing a short watch advert. I implemented a range of 3D modelling, texturing, lighting and motion graphic techniques.



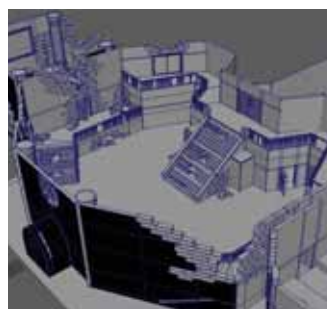
Benjamin Kibble

thekibblemeister@hotmail.co.uk
http://thekibblemeister.tumblr.com

BSc (Hons) Games Concept Design

3D Stylised Animated Music Video

Exploring stylised 3D animation to create an unofficial music video for a music track. I will make use of character designs sourced from the community surrounding the artists' work. I will convert users/fans 2D drawings into 3D characters to feature in the animation.



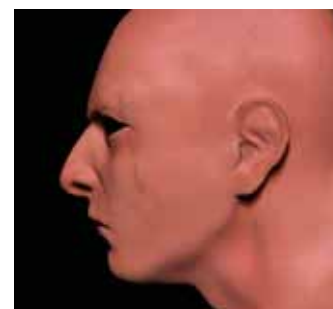
Annie Leadley

flopa@hotmail.co.uk
www.artstation.com/artist/flopa

BA (Hons) VFX: Visual Effects and Concept Design

Morbid Mario

For my project I am re-imagining Peach's Castle from 'Mario 64'. I am putting a dark fantasy twist into my work, combining design aspects from more morbid games such as 'Dark souls'. I have used both hard surface and organic modelling, along with texturing techniques to achieve a final composition.



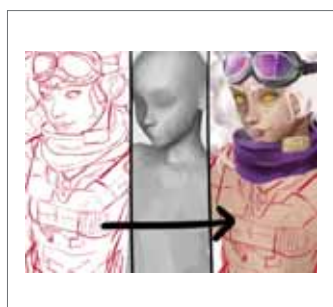
Marios Makris

makris.marios@yahoo.com
https://marmak8.artstation.com

BSc (Hons) Games Concept Design

Unreal Engine Photo Realism of facial features

My research explores how to create photo realistic facial features, including eyes, skin and hair. Using industry techniques, I want to understand why certain features look the way they do when affected by conditions such as light, shadows and wetness.



Molly May Martin

mollymay.art@gmail.com
www.artstation.com/artist/molly_may

BA (Hons) VFX: Visual Effects and Concept Design

Character Concept Design

Character concept: Putting life into game, film and TV. What makes a great character design and how does it help to flesh out the world in which they are set? An exploration into how the world perceives characters and how these reactions can be effectively utilised.



McCauley O'Neill

mccauleyoneill@outlook.com
www.artstation.com/artist/corkyoneill

BA (Hons) VFX: Visual Effects and Concept Design

Hellwood Circus

The circus has come to town!

For this project I have decided to focus on the theme of a haunted killer circus coming to a real life location causing the streets to become forsaken with dread and evil with elements of dreamlike horror.



Sophie Owens

sophieowes.work@gmail.com

BSc (Hons) Games Concept Design

How to Accurately Portray Emotion in 3D Characters

This project aims to build a 3D character model, which will show their emotion and personality without the use of a scene or character interaction. I wish to show the models' true character in contradictory attire and body shape.



Hannah Palmer

hannahpalmer1996@gmail.com

BSc (Hons) Games Concept Design

A Stylised Method of Developing Characters from a Fairy Tale

An illustrative and stylised approach to developing characters based on an existing fairy tale for the entertainment industry. My project aims to show the development of various characters and scenes from the German fairy tale 'Snow White and Rose Red' by the 'Grimm Brothers'.



Elinor Riley

eiliriley@hotmail.com
www.artstation.com/artist/
eli_galadriel_riley

BA (Hons) VFX: Visual Effects and Concept Design

Compositioning of Greek Temple

For my project, I created multiple shots based on a Greek temple. I created these shots using different skills in compositing using the Foundry's Nuke. The project mainly focuses on the techniques of 3D tracking and integrating stock footage and green screen footage into live footage of a wooden area.



Tabitha Robson

deskmonkey94@hotmail.co.uk
www.artstation.com/artist/
frankulous

BSc (Hons) Games Concept Design

Plantocalypse

'Plantocalypse' is the title for a series of concept art and comic illustrations based around the plant-ridden world of a lonely girl and her Snake companion.



James Scanlon

james_sc301@yahoo.co.uk
www.jamesscanlon.co.uk

BSc (Hons) Digital Film and 3D Animation Technology

Zeppelin Sky-port

Nestled within a somewhat run down, industrialised town, a corvette-class zeppelin makes port. Predominantly created in Maya, this 3D scene's intent is to capture the viewer's imagination, by creating an illusion that there is 'more to discover' beyond the boundaries of the old port street.



Leoni Spilsbury

leoni6175@hotmail.co.uk
www.artstation.com/artist/
leoni_spilsbury

BA (Hons) VFX: Visual Effects and Concept Design

Creature Development for Films and Commercials

My project features a collection of CGI animals realised using Zbrush. The project looked into realistic modelling and sculpting techniques. I created the textures using Polypaint tools and fur using Fibermesh. I created the backdrops in Photoshop using a wide selection of images and filters.



Daniel Thornton

dan_thornton@aol.com
www.danielthornton.co.uk

BSc (Hons) CGI and Digital Effects

Sci-Fi VR Experience

This project uses the HTC Vive VR headset with Unreal Engine to create a short immersive narrative piece in the science fiction genre. It is an exercise in combining VFX and game techniques to create a film in a new and emerging medium.



Lee Viriyakup

leestimpak@hotmail.com
www.artstation.com/artist/xilul

BSc (Hons) Games Concept Design

Terana: The Beginning

The story of Aira: The Lore Keeper. One day Aira met a stranger named Lahal. The unexpected encounter leads her on an adventure that she will never forget. This project is about creating the concept art of characters and environments of my personal IP, the fantasy world 'Terana'.



Rachel Walpole

r.walpole220@gmail.com
www.artstation.com/artist/
nesokaiyoh

BSc (Hons) Games Concept Design

Concept Art and Comics Illustration

Comic work and concept art associated from various projects, including my long running fantasy based comic 'Valley of the Gods'. I will feature concept art such as sketches, rough paintings and fully rendered paintings related to the design of characters, environments, and development of my story.



Reese Wiggins

reesewiggins@hotmail.co.uk

BSc (Hons) CGI and Digital Effects

Imperial Guard Sentinel

The Project is a fully modeled, textured, rigged and animated Warhammer 40,000 Imperial Guard Sentinel. The aim of this project is to study hard surface modeling, texturing and then rigging of a non-human skeleton.

FX



Isaac Yianni

isaac.yianni@yahoo.co.uk
www.artstation.com/artist/
isaacyianni/profile

**BSc (Hons) Games Concept
Design**

**Architecture and Symbolism
in the Dark Fantasy Genre**

My project looks into how architecture, psychological inferences and symbolism evoke an emotional response in the viewer. In particular, through the design of backgrounds and environments found in dark fantasy games, films and other media.



Reece Bayne

reecebayne1995@gmail.com
https://reecebayne.com

BSc (Hons) Computer Games Design

Upgrade. - An Arena FPS Where Cards Affect the Outcome

Ability-based first person shooters have been rapidly gaining more popularity in recent years. The aim for Upgrade. is to take these existing game design ideas and explore and innovate to create a unique and entertaining local multiplayer game that is built in Unreal Engine 4.



Alexander Birchall

alexander.birchall@googlemail.com

MEng (Hons) Computer Games Design and Programming

Newtonian Nightmare

A 2D puzzle platformer utilising the manipulation of physics to get the player to the end of each level. The game has 8-bit style graphics and is built for Android devices using the Unity engine.



Thomas Broomhall

tombroomhall@googlemail.com

BSc (Hons) Computer Games Design and Programming

True Card: A Card Game Framework

'True Card' is a framework based in Unity to allow designers, and developers, to make their own card games based on their own sets of rules. The framework makes placing cards, and making effects, simple, and allows a whole host of games to be created upon it.



Christopher Buzzard

chrispbuzzard@gmail.com
christopherbuzzard.com

BSc (Hons) Computer Gameplay Design and Production

Creating Game Modes within a Simple Mechanic Game

The objective of this project was to create multiple game modes within the limitation of a simple mechanic game. The main mechanics involved placing and picking up blocks but the challenge was to prototype enjoyable and challenging game modes but without compromising the mechanics of the main game.



James Calamaro

jamiecalamaro@hotmail.co.uk

BEng (Hons) Computer Games Design

Red Baron's Triplane

My project is a redesigned and remodeled, video game ready version of the Red Baron's famous Triplane, the Fokker Dr.I! I have produced a historically accurate model of the plane that was used in WW1. I have redesigned the paintwork through Photoshop texturing, and have presented my work in Unreal Engine 4.



Thomas Church

t.church479@hotmail.co.uk

BEng (Hons) Computer Gameplay Design and Production

Fighter Command

This war game allows two players to take command of the Royal Air Force and the Luftwaffe in the Battle of Britain. At the strategic and operational levels, the two players must make vital decisions on the deployment of limited supplies of aircraft and resources to achieve victory.

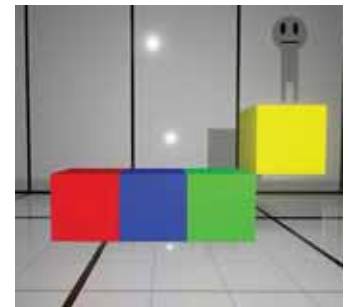


Adam Coles

noctisdesigns@outlook.com

MEng (Hons) Computer Games Design and Programming

The design, creation and execution of a multiplayer combat system that uses areas of the battlefield to enhance a player's attacks based on their collected resources or position on the map.



Luke Critchley

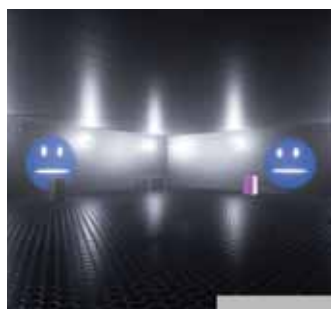
luke@lukecritchley.com
www.lukecritchley.com

BSc (Hons) Computer Games Design and Programming

CBJ: Cube, Build, Jump!

A small demo of a hybrid 2D/ First-Person puzzle platformer for PC using Unreal Engine 4. The player must use multi-coloured cubes with unique abilities to solve puzzles in both a 2D and 3D environment, switching between two different characters to reach the goal.

Games Design and Production



Matthew Denny

mattdenny@me.com
<https://matthewdenny.wordpress.com>

BSc (Hons) Computer Gameplay Design and Production

Playable AI Prototype Game

A working playable prototype first person puzzle escape game, set on a space station. The AI learns from how the player is playing and reacting in the world. Based on what it has learned, the AI will attempt to stop the player using different resources it controls.



David Dewhirst

i.am@daviddewhirst.co.uk
www.DavidDewhirst.co.uk

BEng (Hons) Computer Gameplay Design and Production

Project Survive - Published SteamVR Title

A single player, shooter, wave-survival game developed for the HTC Vive in Unity3D. The game uses a new innovative movement system. This allows for easy movement around the environment, includes intuitive gun play and an almost real world experience to create an overall enjoyable game.



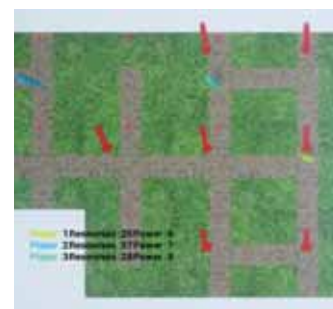
Samuel Docherty

samdocherty556@gmail.com

BSc (Hons) Computer Gameplay Design and Production

Stealth Gameplay Concept

I have mechanically recreated a modern day stealth game, demonstrating my scripting skills developed using Blueprint in the Unreal 4 engine. I have taken inspiration from games such as Metal Gear Solid and Splinter Cell, to create a Gameplay concept which uses some of the core mechanics of this genre.



Kieran Dunn

kieran@kierandunn.com
www.kierandunn.com

BEng (Hons) Computer Games Design

Conquer the Climate

I have designed a computer game based on the board games 'Risk' and 'Carcassonne'.

Players take turns placing down map tiles and moving around the tile based game. The goal of the game is to destroy the other player's base located on different map tiles.



Reuben Emery-Rhowbotham

reubs@mail.com
www.artstation.com/artist/reuben

MEng (Hons) Computer Games Design

The Iron Throne, from A Song of Ice and Fire

This project aims to recreate Marc Simonetti's representation of The Iron Throne from the "A Song of Ice and Fire" book written by George R. R. Martin. I have used a range of software including but not limited to, Quixel Suite, zBrush, 3Ds Max, UE4 and Substance Painter.



Jonathan Furmedge

jon@furmedge.net
jonfurmedge.wordpress.com

BSc (Hons) Computer Games Design and Programming

Portalstone - Town Building Game

In Portalstone players build and manage a medieval fantasy town, they interact with the town and its villagers by controlling a 3rd person avatar. The game has been created using Unity Engine.



Benjamin Goodrich

bengoodrich@hotmail.com

BA (Hons) Games Art Crewe Lyceum Theatre Recreation

I am producing a 3D rendering of the Crewe Lyceum Theatre. I want my environment to be accurate enough to use as a virtual tour, using a fly through. Directors could also use the environment to plan the visual aspects of their show.



Ellis Griffiths

ellisgriffiths@outlook.com

BEng (Hons) Computer Gameplay Design and Production Self Protected

Using your ability of astral projection you must solve puzzles to make your way through the rooms of a boarding school secretly for those with supernatural and paranormal abilities. You must use the power of your zener cards to defend against attacking spirits as you try to make your escape.



Elliott Hall

elliott.hall1994@hotmail.com

BSc (Hons) Computer Gameplay Design and Production

Fallen

'Fallen' is a first person casual game in which the player must find hidden notes in order to find out what happened to them and help them to progress through the game.

The game will be made using Unreal Engine 4 and uses assets made in Photoshop and 3DS Max.



Luke Haslett

Luke.Cage@hotmail.co.uk

lukehaslett.weebly.com

BEng (Hons) Computer Gameplay Design and Production

Grinders Keepers - An Unreal Engine 4 Game

A Dungeon Crawler game where the player develops their own character, fights monsters, and collects loot whilst using traditional character progression. The player can explore through randomly generated dungeons, or use a built-in level editor tool to create their own custom map to play through.



Sophie Heath

sophieheathart@gmail.com

BSc (Hons) Games Concept Design

Character Designs

I will be creating two characters, designed for the game 'League of Legends' by Riot Games. Each character will have a character sheet where they will be T-posed to see the clothing and abilities description and a splash art for each character.



Nicholas Heywood

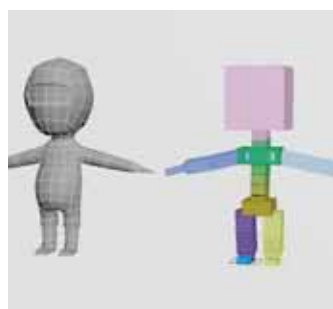
nickheywood92@outlook.com

http://nickthorn92.uk

BSc (Hons) Computer Games Design and Programming

The Accessibility of Gameplay

This project consists of researching a select range of conditions, such as disabilities and/or learning difficulties; that impact the gaming experience for players, and what settings are used or ideal to aid them. My research will then be used to create a project in Unreal Engine 4 for demonstration purposes.



Thomas Ingley

inglez@live.co.uk

BSc (Hons) Computer Games Design

Character Animator Showcase

My project brings to life two differently designed characters from concept to the final animated product. I create all models, rigs, skinning and animations from scratch.



Harun Jhamat

thejhamat1@gmail.com

www.harunjhamat.com

BEng (Hons) Computer Games Design and Programming

Marksman

'Marksman' is a first person strategic stealth shooter. I aimed to create the most realistic gaming experience of being a renowned trained assassin. I have used AI throughout to make enemies more adaptable and clever in their approach to combating the player and protecting their VIP.



Samuel Jones

sjonesis@hotmail.co.uk

https://www.linkedin.com/in/samuel-jones-7a820278/

BSc (Hons) Computer Games Design

Multiple Analysis and Comparisons of Video Games

I have produced a variety of documents related to games journalism. These include reviews and comparison pieces to more in-depth articles on topics such as the mainstream media and their image of this society. I have also written about how Esports has created a whole new dynamic to consider.



Kieran Jordan

kieranjordan6@gmail.com

BEng (Hons) Computer Gameplay Design and Production

UE4 Falling Skies Level

I will be producing a level and basic gameplay based on the 'Falling Skies' TV show.

Using UE4, I will focus on the layout of the level and the mechanics, rather than the art so the level will be grey boxed with just simple textures.

Games Design and Production



Aaron Ketteringham

aaron_ketts@hotmail.com
aaronketts.wixsite.com/aaronk

MEng (Hons) Computer Games Design and Programming

Dungeon Crawler - Game

'Hail Fall' is a playable dungeon crawler prototype. Containing quests, puzzles, monsters and more! With my knowledge in art I was also able to create the theme and models needed for the project to keep a consistent art style as well.



Stuart Kusters

stuart.kusters@hotmail.com

BEng (Hons) Computer Games Design

Games Narrative and GGJ Management

An investigation into the use of different narrative techniques found in games narrative and media. This includes event management used in the running of Global Games Jam 2017, which I was personally organised and documented streamed and presented.



Shaun Lawrence

shaunjlawrence@msn.com
www.slawrencegame.com

BEng (Hons) Computer Gameplay Design and Production

V-RIG

A Virtual Reality game developed using UE4 for the HTC Vive, focusing on the use of VR Interaction mechanics with the Vive Motion Controllers. Players are given control of a gun turret with a variety of mechanics and controls they must use to defeat various waves of AI Enemies.



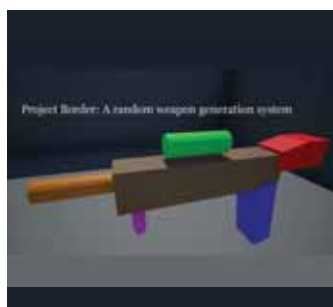
Jay Leverton

Jay.John.Leverton.Design@gmail.com

BSc (Hons) Computer Gameplay Design and Production

EleMental

A third person, split-screen, 2-player, competitive game in which you face off against another player with your chosen elements at your disposal. Choose between earth, water, fire, and air to destroy your opponent in chaotic arena death matches. I developed the game in Unreal Engine 4.



James Light

jwlight@live.co.uk
lightbulbstudio.blog

BEng (Hons) Computer Gameplay Design and Production

Project Border

My project is designed to recreate the weapon system as seen in games like 'Borderlands' and 'Diablo'. Whenever an enemy is defeated they may drop a weapon.

My system will aim to generate a completely new weapon every time this happens.



Dominic Long

domlong13@hotmail.co.uk

BEng (Hons) Computer Gameplay Design and Production

Wilderness Survival: Mobile Puzzle Game

A turn based puzzle game developed for Android mobile devices. The player has to survive the harsh wilderness to solve puzzles and avoid enemies. The game uses swipe controls and some tap touches for a control scheme to control the player.



Dale Longshaw

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

MEng (Hons) Computer Games Design

Dungeon Crawler

A 3D dungeon crawler game and environment created in Unreal Engine 4. Play as Blue, a soul-stealing treasure hunter, whose special skill allows her to use the moves of defeated enemies. Explore a forgotten city atop a floating continent filled with ancient traps, puzzles, and treasure.



Jordan Lovell

jordielovell@hotmail.com

BSc (Hons) Computer Games Design

Planes: 2D Environment Shifting Game

'Planes' is an interactive 2D environment that bends to the players will. You exert control over the planes and watch the ever changing environment take on extreme conditions to suit your needs. Can you conquer the environment to gain access to the dungeon and face an even more challenging battle?



James Maiden

i.am@jamesmaiden.co.uk
www.jamesmaiden.co.uk

BSc (Hons) Computer Games Design and Programming

Simian's Universal Bars

A flexible tool made for Unreal Engine 4 to assist with the rapid prototyping of Game ideas. Made entirely in C++ for use with Blueprint.



Adam Malton

BSc (Hons) Computer Games Design

The Economy of World of Warcraft

My report compares the economy of World of Warcraft with the real world economy. I will investigate the similarities and the differences between the two, particularly how companies use the game to look for possible future fixes to real world economic problems.



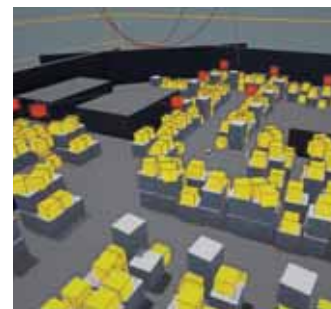
Samuel Matthews

s.s.matthews2200@gmail.com

BSc (Hons) Computer Gameplay Design and Production

Survival Simulation for Armed Forces

Squad Tactics, a board game set in a desert based terrain, with items on the map that is set cover such as large crates and walls. There are enterable buildings such as a garage and a weapons store room that the player can utilise against the enemy.



Kieran McGrath

KieranMcGrathActual@outlook.com

BSc (Hons) Computer Games Design

Practical Design Study into the Mechanics of Boss Fights

I am developing a game centered on boss fights. The game is designed to experiment with player experiences to better understand what makes satisfying fights. I surveyed a number of gamers to help inform the design of the project.



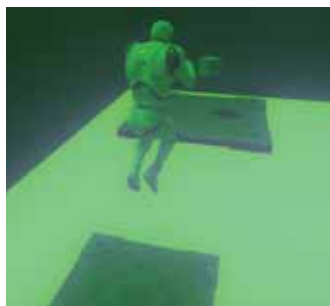
Vivian Murray

vivian@vgmurray.com
vgmurray.com

BSc (Hons) Computer Gameplay Design and Production

Medieval Cooking Game

A game created in Unreal Engine 4 with survival elements based around a core cooking system. Cooking is required in order to survive in the game and there are diminishing returns for repetition, encouraging experimentation and exploration. Players can gather ingredients and create meals based on medieval recipes.



Corey Newell

coreynewell@hotmail.co.uk
coreynewell.co.uk

BSc (Hons) Computer Games Design

Spectrum

'Spectrum' is a platformer style game where the player must switch between three different colours to hide and show different platforms. The Player Traverses these platforms to collect all of the pieces of 'The Great Colour Unifier', a machine that will restore the world back to balance and its natural hue.



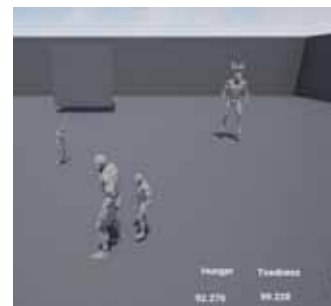
James Ogunyale

j.ogunyale@yahoo.co.uk
jamesogunyale.co.uk

BSc (Hons) Computer Gameplay Design and Production

e-Sports: A Guide from Where it Began to Where it is Now

When people hear e-Sports they complain that it isn't a real sport. However, e-Sports has been around longer than we know but in the shadows. This guide teaches you about e-Sports from its humble beginnings to its present form and where it could be going in the future.



Luke Padbury

luke.padbury@hotmail.co.uk

BSc (Hons) Computer Games Design and Programming

Virtual Pet Game

A video game where the player looks after a pet's needs and trains it so it can fight its enemies. The game was produced using Unreal Engine 4, 3DS Max and Photoshop. I recorded all sounds and edited them using Audacity.

Games Design and Production



Nathan Paddick

nathanpaddick1995@outlook.com

BSc (Hons) Computer Gameplay Design and Production

Finding the Way: Constant Change at Singing Dragon Studios

60% of new UK businesses fail within five years. Singing Dragon Studios intends to be a survivor. Drawing on two years of part-time operation without a release, we have made changes to our production processes to eliminate enduring faults. This will ensure a successful product launch in 2017.



Jamini Patel

jempatel95@hotmail.com

<http://jempatel.co.uk/>

BSc (Hons) Computer Games Design and Programming

TITANITE- Twins of Dirragon

A psychedelic survival puzzle game, set in a procedurally generated environment on a local network, created within Unity (c#). The player will be placed in an unknown world where they will be uncertain of what is real and what isn't. Assets have also been created by myself.



Kristian Pearse-Kelly

Kristianpkelly@gmail.com

BEng (Hons) Computer Gameplay Design and Production

Modern Day Naval Scenario

I am making a naval warfare VBS3 scenario based of modern day naval events. I have researched current naval warfare to ensure accuracy. Before using VBS3 I made a large scenario in Arma 3 which is very similar to VBS3.



Robert Pullen

RPullenGames@gmail.com

BSc (Hons) Computer Games Design and Programming

Fantasy Film

My aim is to create a 2D platformer that immerses the player in a film-making scenario for PC. The player is given a limited amount of footage to create a hit film, which they must use to record themselves fighting enemies and performing poses.



Allan Quetua

allan_quetua@hotmail.com

www.artstation.com/artist/takenoriakagi

BSc (Hons) Games Concept Design

Making a Stylised Character

Making a character from the initial stages of thumbnail sketching up to translation into 3D, following a set theme, which is mainly a samurai. I have used Zbrush and Maya, TopoGun and Photoshop to produce a stylised character..



Darshan Sachdev

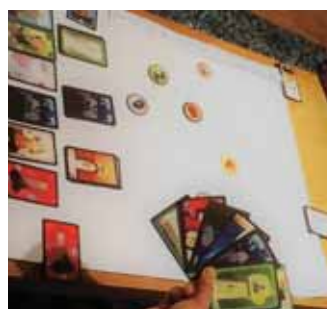
darshan9@msn.com

BSc (Hons) Computer Games Design

Power in VR

An investigation into how a feeling of power can be evoked in virtual reality.

This involved researching games that exhibit similar effects, experimenting through applying the research into an engine and documenting the findings. This process was applied several times throughout the year.



Karthik SK

kalium_kx@hotmail.com

www.linkedin.com/in/karthik-sk-28253639/

BSc (Hons) Computer Games Design and Programming

Ambidexter: Will you Ally... or Betray?

A social game of deception where you play cards to influence your opponents to climb to the top. Ally and betray them to climb the rankings in this thrilling game based on "The Prisoner's Dilemma". You can also trade cards while lying to one up each other.



Aleksander Skrzypacz

BSc (Hons) Games Concept Design

Redesign Existing Landmarks into Gothic Architecture

The aim of this project is to redesign pre-existing landmarks and parts of cities into Gothic architecture. The modern day technology like billboards and neon signs will still stay the same only the design of the building will change. As well as a 3D model, I will also produce a 2D painting.



Thomas Smith

tomsmit3d@outlook.com

BSc (Hons) Computer Games Design

Fallout 3's Megaton: Unreal Engine 4 Remake

An Unreal Engine 4 recreation of the Fallout 3 Megaton game environment. The environment is complete with higher detailed models and higher resolution textures

All models were created using 3DS Max and Zbrush, and all textures were created using Substance software.



Christopher Southorn

cwsouthorn@yahoo.co.uk

MEng Computer Games Programming

The Burglar

The Burglar is a stealth game made in Unity, in which the player sneaks around a 3D environment and attempts to steal as many items as they can before they are caught or time runs out!



Joseph Stevens

joestevens94@hotmail.co.uk

BSc (Hons) Computer Gameplay Design and Production

Ebb & Flow: A Dungeons and Dragons 5th Edition Module

A 5th Edition Dungeons and Dragons campaign set in the 'Forgotten Realms' fantasy setting. This campaign takes players from levels 1-5 and has up to 5 players create a character and fight against the mysterious corruption gripping the environment nearby.



Ryan Tapsell

rtapsell@hotmail.co.uk

BEng (Hons) Computer Games Design

Automated Assembly Line

My project involves designing, creating and animating a location in a factory which can be used in a stealth Sci-fi game. The area is designed around an automated assembly line, with animated arms constructing a security robot from pre-assembled parts.



Benjamin Thomas

bengthomas@gmail.com

BSc (Hons) Computer Games Design

Vehicular Combat Game

My game is an arena based combat game for cars and the like, made with Unity. The project will focus more on working mechanics than the assets within it, though hopefully these too can be good.



Thomas Vine

thomaswvine@gmail.com
<https://tomvine.com/>

BSc (Hons) Computer Gameplay Design and Production

Tales of the Realm: AI and Player Agency

Inspired by the Atari classic 'Adventure', 'The Realm' is a fantasy world filled with characters that have their own goals and behaviours, accomplished with Goal-Oriented Action Planning (GOAP). The idea is to create a compelling world that, with a player dropped in, produces fun and varied situations each time.



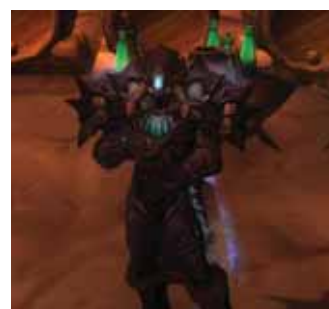
Sam Wiffen

sam.wiffen.aw@gmail.com

BSc (Hons) Computer Games Design and Programming

Dead Drop Racing

I have produced a futuristic hover racing game built using Unreal Engine. Built from scratch using personally made assets throughout the project.



Andrew Wilday

andrew.wilday@hotmail.co.uk

BEng (Hons) Computer Gameplay Design and Production

An Investigation into MMORPG Crafting Systems

An investigation into World of Warcraft's Profession system. How the professions system has developed from World of Warcraft to the expansion Legion and how players have utilised the professions system within the World of Warcraft.

Games Modelling and Animation



Michael Askari

BA (Hons) Games Art

1980's Female Action Hero

80s action cinema was dominated by male heroes such as Stallone and Schwarzenegger, but almost no female action heroines. This inspired me to design, 3D model and texture a realistic and original heroine inspired by 1980's action cinema and games such as 'Sunset Overdrive' and 'Broforce'.



Jake Aubrey-Bentley

jake3d@icloud.com
www.artstation.com/artist/zebrajake

BA (Hons) Games Art 3D Character Artist

I have re-imagined the protagonist, Nausicaa from a film 'Nausicaa Valley of the Wind' by Studio Ghibli in real life proportions and perspective. Along with this I have created an aged samurai in traditional robes.



James Barratt

jamesbarratt95@gmail.com

BA (Hons) VFX: Visual Effects and Concept Design Warhammer 40,000 Necron Triarch Stalker

A detailed, fully textured 3D model of a 'Triarch Stalker' figure from the Warhammer 40,000 board game. Referenced directly from an actual figure, this model aims to be as close to the real thing as possible, with my own twist in the textures.



Dan Betts

danbettsy@gmail.com

BSc (Hons) Computer Games Design

Karametra, God of Harvests Model

A 3D recreation of the art piece "Karametra, God of Harvests" by Eric Deschamps, rendered in Unreal 4 and modelled mainly in Zbrush. This is part of a study into character design as well as animal modelling, and some aspects of hard surface and environmental designs.



Harry Buckley-Robins

H.Buckley_Robins@Yahoo.co.uk
www.artstation.com/artist/hbuckleyrobins

BA (Hons) VFX: Visual Effects and Concept Design Warhammer 40k 'Onager Dunecrawler'

I have digitally modeled, UV-mapped, textured and rendered a high-poly recreation of the 'Skitarii Onager Dunecrawler' from the Warhammer 40k universe. Successfully producing an accurate, to scale recreation of the vehicle and producing multiple realistic renders.



Joshua Burrows

burrows11m2@googlemail.com

BSc (Hons) Computer Games Design

Cinematic Animation of Spiderman's Movements through a City

My project aims to re-create the movements of spider-man as he makes his way through a city and intervenes in a crime.

I have used real models to create multiple animatics. I then refined the camera placement and special care was taken to recreate the main character's movements to improve the match to the source material.



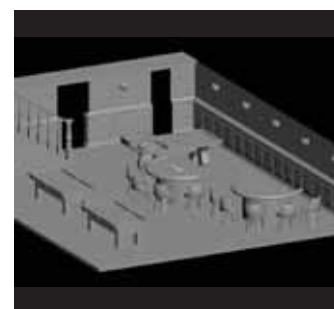
Xavian Campbell

xave.campbell@yahoo.co.uk
www.xaviancampbell.co.uk

BSc (Hons) Computer Games Design

Fully Animated and Playable Character and Mech (UE4)

A fully rigged, animated and playable character and mech in Unreal Engine 4. To achieve this, I sourced a free human character 3D model, and a free mech model. I then fully skinned, rigged, animated, and implemented them into Unreal Engine 4.



Angelo Miguel Cardoso

angelomouracardoso@gmail.com

BEng (Hons) Computer Games Design

1920's Private Gentlemen's Club

A model of a private (bar/gambling) club, set in the 1920's during the prohibition era in America. The environment will be made to look realistic, it will also show some wear yet still look (upper class/luxury). The following programs will be used 3ds Max, Zbrush and Photoshop.

Games Modelling and Animation



S G Carolan

steviecarolan1992@hotmail.com

BSc (Hons) Computer Games Design

King Tiger Tank

A King Tiger Tank modelled and textured in UE4.



James Challenor

JC@Seraphim3D.com
www.Seraphim3D.com

MEng (Hons) Computer Games Design

World of Warcraft - Mists of Pandaria Environment

Creation of a World of Warcraft themed environment for a Dungeon Crawler style of game. The intention was to develop a better understanding of both hand painted texturing and Zbrush sculpting for environment art.



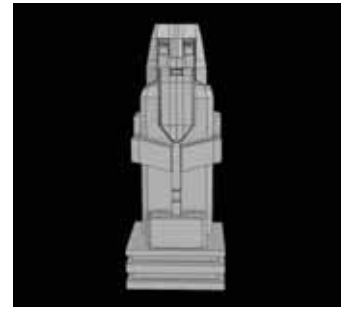
Junior Clemson-Perritt

Junior_c_p@live.co.uk
https://juniorc-p.wixsite.com/juniorcpchar-artist

BA (Hons) Games Art

Cyborg - Character

My aim is to create a cyborg inspired by various robots and mechs from sci-fi and futuristic games and other mediums. I will be using Zbrush to sculpt and re-top. The model will be textured using Substance painter and Photoshop and unwrapped in 3Ds Max.



Findlay Clyne

Findlayclyne@gmail.com

BSc (Hons) Computer Games Design

Environment Design - Dwarf City

A large environment fully assembled within UE4, including an exterior/gate, main hallway, open room, and giant statue. My design follows the fantasy style of Dwarves taking inspiration from films and games such as 'Lord Of The Rings', 'The Hobbit', 'World of Warcraft' and many others.



Gareth Codling

gareth_codling@outlook.com
www.gazman162.com

MEng (Hons) Computer Games Design

Necron Triarch Stalker - Redesign

A recreation and redesign of a Triarch Stalker Mech from Warhammer 40K. This piece aims to re-imagine the original design, whilst maintaining the same style. Presented in Unreal Engine 4.



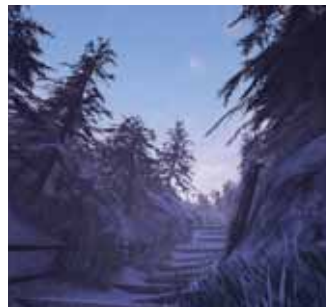
Ashley Cooke

ashleycooke16@hotmail.co.uk
www.artstation.com/artist/ashleycooke

BSc (Hons) Computer Games Design

Steampunk Version of 1960's Ford Anglia Deluxe E105

To design, create and showcase a steampunk twist on Harry Potter's iconic Ford Anglia. This is presented in Unreal Engine 4 using PBR textures and dust shaders to produce a high detailed game ready asset for next gen vehicle combat games.

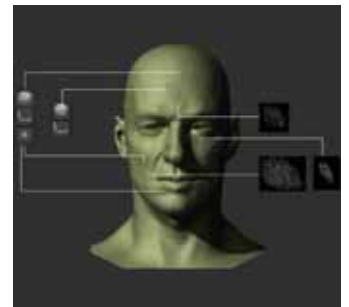


William Crighton

williamCrighton.Work@outlook.com
http://williamcrighton.co.uk/

BSc (Hons) Games Technical Art
3D Environment Art

A collection of the 3D props and environments I have created for assignments as well as personal projects. The environments include a detailed spaceship interior, a hut inspired by 'The Witcher 3' and a chocolate shop.



Conor Dapkis

dapkisc@gmail.com

BA (Hons) VFX: Visual Effects and Concept Design

Photo Realism in 3D Modelling

Creating models in Z-brush to a photo-realistic standard that would show off potential characters in scenes. The process starts with base concepts to making a variety of models in Z-Brush which will then be completed and rendered to a high standard to show potential clients a 3D representation of an idea.

Games Modelling and Animation



Sanjeev Dhadda

sanjeevdhadda@live.co.uk

BSc (Hons) Computer Games Design

F1 Ferrari Garage

I will be creating a game ready environment using different software's, largely based around 3D and 2D computer graphic applications such as 3ds Max, Photoshop and Unreal Engine 4.



Simon Dudley

simonantonydudley123@hotmail.co.uk
www.artstation.com/artist/simondudley1995

BSc (Hons) Computer Games Design

British WW1 Mark V Tank

I am modelling the British WW1 Mark V tank exterior and interior with high detail whilst still keeping it game ready. The tank will be textured to a PBR standard.



Ashley Durkin

zeestar95@gmail.com
www.artstation.com/artist/ashleydurkin

BEng (Hons) Computer Games Design

Emotional Alleyway

A cinematic portrayal of an innocent civilian being hunted through city back alleys by a sinister copy of himself. The expressions expressed by the characters are the key to understanding who is who. I have used cinematography techniques from successful directors and films.



Martyna Dzienis

martyna.dzienis@yahoo.co.uk
www.facebook.com/ellowly

BSc (Hons) Games Concept Design

Creating a Stylised Class Character in the World of Warcraft

I have created a stylised 'Blood Mage' class character in the 'World of Warcraft' Universe. I chose this method as stylised game art is a non-photorealistic way of expressing computer graphics which seeks the highest level of conscious stylisation over mimesis.



Callum Faulkner

callumfaulkner@hotmail.co.uk
http://callumfaulkner.wixsite.com/myportfolio

BEng (Hons) Computer Games Design

Pixie

I have produced a fully playable "realistic" pixie character. It has been textured and animated using Zbrush, Photoshop and 3Ds max and playable in Unreal engines.

My character was inspired by insects and aliens (particularly the alien from the film 'Predator').



Kieran Flanagan

keyflan14@googlemail.com
www.artstation.com/artist/kieranflan23

BSc (Hons) Computer Games Design

Animated Fight Scene

I have created an animated martial arts fight scene. I have rigged and skinned the characters myself. I have used the motion capture suite to get the data for the scene. The data was cleaned and recorded in UE4 using cameras.



James Fowle

j.fowle0072@gamil.com

BSc (Hons) Games Concept Design

Determining a Character Based Solely on First Impression

This project set out to achieve a visualisation of a character with clear purpose without the need to verbally describe what it is that they are. I achieved this by creating a backstory based on appearance, occupation or based on their clothes.



Anastacia France

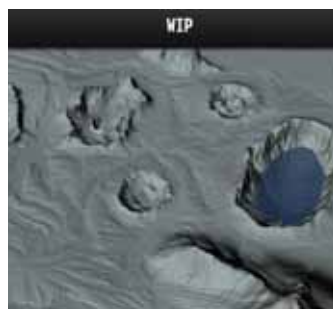
anastaciafrance@icloud.com
www.anastaciafrance.co.uk

MEng (Hons) Computer Games Design

Dollface Fan Art | Anti-Mercy Mech

A high poly sculpt of the main characters of the new comic called 'Dollface', created and presented within zBrush. I have also produced a game ready Mech taking inspiration from Mercy in 'Overwatch' presented within Unreal Engine 4.

Games Modelling and Animation



Alexander Hamilton

h027299c@gmail.com
www.artstation.com/artist/hamiltonalex

BSc (Hons) Computer Games Design

Halo Wars: Tundra Updated

A remake and update of the 'Halo Wars' RTS map, 'Tundra'. I have used World Machine to generate terrain, 3ds Max for modelling, Zbrush for sculpting, Substance Designer for materials, Substance Painter and Photoshop for baking and texturing, and Unreal Engine for particles, presentation and rendering.



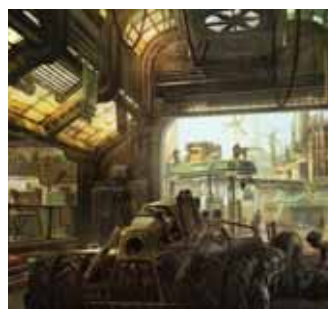
Tola Henry

tolahenry@hotmail.com

BEng (Hons) Games Technical Art

Character for Games

I will be creating a game ready character suitable for MORPG or RPG games. The character would be modelled and sculpted, textured, unwrapped and finally presented in the Unreal Engine 4 games engine.



Daniel Hollands

dhollands94@gmail.com
dhollands.artstation.com

BSc (Hons) Computer Games Design

Futuristic Workshop Environment

I have created a 3D environment based on a piece concept art of a 'Mad Max-esque' vehicle workshop. All 3D assets were modelled and/or sculpted in 3ds Max and Zbrush, then textured in Photoshop and/or Substance Painter. Presentation shots of wireframes and work in progress shots will also be shown.



Matthew Jones

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

MEng (Hons) Computer Games Design

5 Years Long

A collection of work I have produced over the years whilst at the University. Including some of the earliest work of my foundation year right up to the end of my recent masters year. The aim is to show my progression over the past five years of studying.



Jamie Lamb

Lambyep@yahoo.co.uk
https://lambyep.carbonmade.com

BSc (Hons) Computer Games Design

Helm's Deep (Lord of the Rings - The Two Towers)

I'm recreating an environment called Helm's Deep from the famous 'Lord of the Rings' books with my own added touches to the environment. The environment itself is mainly modular pieces so creating it was simple and easy to put together in Unreal Engine 4.



Mark Lambert

mark.lambert23@ntlworld.com
www.artstation.com/artist/remenance

BSc (Hons) Games Concept Design

Cinder

A development of the traditional visual aspects found within classic RPG-styled games. Presented as an imaginary IP, "Cinder" aims to demonstrate how a holistic approach to such designs can benefit the emotional and mechanical elements of games.



Thomas Lishman

tom@cryart.co.uk
www.tlishman.co.uk

BA (Hons) Games Art

Character Art for Games, Toys and Miniatures

A showcase of digital character art, this portfolio project will present the personal and professional work of Thomas Lishman throughout his extensive experience in creating and sculpting characters for games, miniatures and figures.



Nathan Lloyd

nathanlloyd1@outlook.com
https://codenirvash.artstation.com

BA (Hons) Games Art

The Masked Fighter Zeke

Creating a character called Zeke for a martial arts fighting game in the same genre as MMO game 'Absolver'.

I will be using zBrush to bring the character to life by sculpting, fleshing out details and applying some texture's to bring out the character's true nature.

Games Modelling and Animation



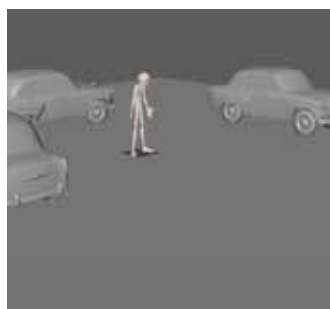
Jack McCann

jack.c.mc@hotmail.co.uk
www.artstation.com/artist/jackmccann

BSc (Hons) Computer Games Design

Steampunk Portal Room

A Steampunk-inspired scene consisting of a giant portal and all the equipment used to power it, rendered and presented in Unreal Engine 4 with full PBR textures. The aim is to create a visually interesting piece of art with an equally interesting narrative.



Lee Meredith

leemeredith@outlook.com
www animatorlee.co.uk

BSc (Hons) Computer Games Design

Telekinetic Ultimate Attack

This animation features a telekinetic mage throwing cars into a target, ripping them back out and combing them into each other for a final powerful smash into the target. Inspired by the X-men films, I have used a combination of straight ahead and pose to pose animation, shot within Maya.



Joseph Moon

joemoon94@virginmedia.com
www.artstation.com/artist/mooney3d

BA (Hons) Games Art

Current Gen Racing Car

To model, texture and present a 3D model of the 2016 Ford GT Le Mans racing car to current gen specifications; utilising PBR material workflow and presented within Unreal Engine 4. Software packages used during the project include 3D Studio Max, Photoshop, Substance Painter, XNormal.



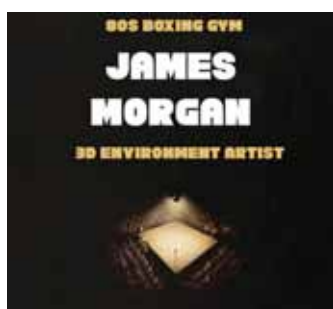
Jonathan Moore

jonomoore8@gmail.com
jonathanmoore.co.uk

BSc (Hons) Computer Games Design

Exaggerated Rigs for Children's Living Toy Animation

Two unique rigs that have been designed to be used for toy-based animations. One Bipedal rig and one Quadrupedal Rig. The rigs use squash and stretch, IK controllers and link constraints to assist in the creating of animation.



James Morgan

Jamesmorgan6@virginmedia.com
www.artstation.com/artist/jamesmorgan3d

BSc (Hons) Computer Games Design

80's Boxing Gym

My project is a boxing gym, set within an old warehouse with references gained from local architecture. My timeframe is set within the 1980's, featuring objects/assets set within that timeframe.

Modelled in 3Ds Max, textured in Photoshop and presented in Unreal Engine 4.



Jason Murray

jasonsanimation@gmail.com
www.artstation.com/artist/topjace

BSc (Hons) Computer Games Design

Character/Creature Animations

Using Autodesk Maya, I will be animating a variety of creatures based on their movements such as a flying dragon, bipedal dinosaur and quadruped animal. This showreel will mostly consist of looped animation cycles (walking, running, flying, swimming) and some special animations such as a roar and attack.



James Neild

jamesneild@gmail.com
https://sites.google.com/site/animaticarts/

BSc (Hons) Computer Games Design

A Death in the Family

A scene inspired by 'A Death in the Family' comic from the Batman series. The Joker has captured Robin. Batman is nowhere in sight. The scene aims to build up the suspense and fear as Robin faces his captor.



Mark Oseland

markoseland@yahoo.com
www.artstation.com/artist/markoseland

BSc (Hons) Computer Games Design

Car Showroom - Concept vs F1

I plan to model two cars, a classic F1 car and a concept car, which I will put on display in a showroom environment within UE4. It will be an interactive experience where the player will have the freedom to walk around the cars, and the option to take a closer look by opening doors, or peering into the F1 cars cockpit.

Games Modelling and Animation



Brandon Otanez

otanezbrandon@yahoo.co.uk

BSc (Hons) Games Technical Art 'Dark Souls' Style Boss

My character is a knight that has been corrupted and mutated by his quest. His decorative armour is heavily damaged and faded, which symbolises the last of his humanity fading. My knight could be used in maps such as Farron Keep in 'Dark Souls 3', which is a toxic swamp.



Andrew Payne

94andrewpayne@gmail.com

BSc (Hons) Computer Games Design

The Wolf

My animation is about a wolf who is woken up by a noise and goes out to investigate and have a look round the area. The aim of this project is to animate the movement of a quadruped accurately. To achieve this I investigated how animals move compared to humans.



Joe Peatfield

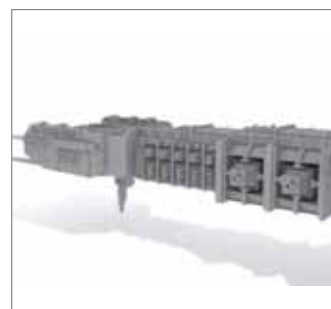
joe@joepeatfield.co.uk

joepeatfield.co.uk

MEng (Hons) Computer Games Design

Warhammer 40K: KX139 Supremacy Battle Suit

Warhammer 40,000 universe-scaled Tau Supremacy Battle Suit. Created using 3DsMax and Zbrush, textured using Photoshop and substance painter techniques for realistic PBR material creation in Unreal Engine 4. My aim was to progress from reference material to finished quality game asset in 12 weeks.



Jacob Platts

jake@plattsfamily.org.uk

www.JacobPlatts.com

BA (Hons) Games Art

40K BattleShip Model

I have created a 3D model of an Eternal Crusader from the 40K universe. The ship has been modelled within 3DS Max. I have used Zbrush to add some damage before baking it down onto my low poly with Xnormal. The final model will be rendered in UE4.



Benjamin Price

benpriceart@gmail.com

benpriceart.com

BEng (Hons) Computer Games Design

GT3 Inspired Toyota Supra

A Toyota Supra modelled with components inspired by modern GT3 racing cars. The Supra has new front and rear bumpers with modern aerodynamic parts, the car also has a new rear wing inspired by the Koenigsegg one:1 as well as a stripped out interior.



Vidas Rimkevicius

vidas1996@hotmail.co.uk

https://fakado.artstation.com

BSc (Hons) Computer Games Design

A Compilation of MOBA Style VFX within Unreal Engine 4

A compilation of real time visual effects created within Unreal Engine 4, in the style of the Massively Online Battle Arena genre. The pack is inspired by games such as 'League of Legends', 'Defence of the Ancients' and 'Heroes of Newerth' as inspiration.



Matthew Roberts

mattroberts669@gmail.com

BA (Hons) Games Art

3D Isolated Space Environment

Inspired by the film "Sunshine", I have produced a single space station docked outside an uninhabited part of space, surrounded by only the rock debris and the glow of a sun. I achieved this using Substance Painter, 3DS Max, Photoshop, 3D Coat and Unreal Engine 4.



Jacob Robinson

jrrobinson7@gmail.com

BSc (Hons) Games Technical Art

Original Overwatch Character

I am creating an original character conforming to creation tropes and artistic styles present in the game 'Overwatch'. I will create the character in 3DS Max and Zbrush. Textures will be baked in xNormal and refined in Photoshop before presenting in Unreal Engine 4.

Games Modelling and Animation



Gillian Rodd

will.rodd@gmail.com
www.WillRodd.com

BA (Hons) Games Art

James Cameron's Avatar, Biolab Environment

To recreate the Biolab from James Cameron's 'Avatar'. Set after the events of the film as nature reclaims Hell's Gate.

Using 3DS Max, Photoshop, Substance painter and Unreal 4, I aim to make this a realistic environment which looks like it's from a game version of the film.



Conor Scott

conorjscott5@gmail.com
www.conorjscott.co.uk

BA (Hons) Games Art

Horror Styled Environment Presented in UE4 + Portfolio

Creating a horror styled game environment and asset pack with modularity in mind, and using games like PT, Allison Road and RE7 for inspiration. I have focused on making a "scary" "creepy" scene without the standard horror tropes such as blood and gore.



Calvin Sharpe

calvin.n.sharpe@gmail.com

BSc (Hons) Computer Games Design

Devil May Cry - Battle Simulation

To make a hack and slash spectacle fighter-styled battle simulation featuring a character and a target capable of being attacked. The character is controllable and capable of using multiple attacks which are capable of being used in different orders, resulting in more powerful and flashier attacks.



Connor Sheppard

connor_sheppard@hotmail.co.uk

BA (Hons) Games Art

Building Intricate Dioramas in 3D

To build an intricate Diorama is to bring a small piece of a world to life. To offer the viewer/player a chance to experience the raw emotion of an environment piece, while letting them put the pieces of the story together themselves.



Joshua Stanley

stanley2011@live.co.uk
https://porowolf.artstation.com

BA (Hons) Games Art

Wolf and Cat Characters

I have produced two UE4-ready characters, using a wolf and cat theme. The characters have been made using an industry standard pipeline with a style falling between realistic and fantasy. The process includes going from a high poly sculpt through to being retopologised, rigged and textured to be displayed in UE4.



Daniel Taylor

danieltaylorbryan@gmail.com

BSc (Hons) Computer Games Design

Tiger 13

I have created a 3D model of the only operational Tiger tank in the world. I have used 3Ds Max and ZBrush for the modelling, Photoshop for the texturing and UE4 for display purposes. I have created a high poly display model and a game ready low poly model.



Matthew Taylor

matthewtaylor07@hotmail.co.uk

BSc (Hons) Computer Games Design

In-Game Character Animation Showcase

A showcase of my animations in UE4 with characters I conceived and modelled using the full pipeline of character creation. I will analyse how character design is affected by animation and how the animations are stylised based on the characters design.



Samuel Thompson

t017209e@student.staffs.ac.uk

BSc (Hons) Computer Games Design and Programming

Modelling Project: Optimus Prime Figure

Using an Optimus Prime action figure, I plan to fully model and optimise a replica of the figure. This will also include unwrapping and map generation, texturing, rigging, and animating the model, ready for showcase.

Games Modelling and Animation



Michael Thulborn

mikethulborn3d@hotmail.com
www.artstation.com/artist/mikewkthulborn

BSc (Hons) Computer Games Design

Development of the Lamborghini Aventador LP700-4 Roadster

To hyper-realistically create the Lamborghini Aventador LP700-4 Roadster for implementation into next gen racing games. Presented in Unreal Engine 4 and using full PBR texturing and shader techniques to showcase a highly refined model.



Thomas Tovey

thomas.tovey@virginmedia.com
thomastovey.com

MEng (Hons) Computer Games Design

Cerastus Knight

A game-ready model of the Cerastus Knight in UE4, made using reference from the Warhammer Universe by Games Workshop. Created in 3DS Max and Zbrush and textured using Substance Painter, the model features different weapons options as well as a choice of player customisation options.



Thomas Whaley

thomas.a.w.braithwaite@gmail.com

BSc (Hons) Computer Games Design

The Iron Throne

A digital recreation of both the iconic Iron Throne, and the surrounding Throne Room from HBO's award winning series: Game of Thrones, presented in Virtual Reality.

My project has been built to be experienced in Virtual Reality, using cutting edge industry techniques from Procedurally-Generated Materials to Parallax Occlusion.



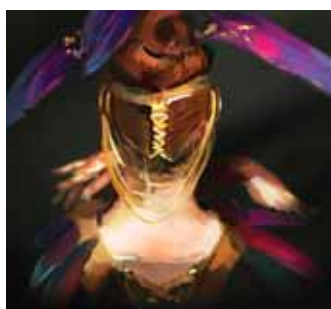
Harry Winship

HarryWinship@gmail.com
www.artstation.com/artist/harrywinship

BSc (Hons) Computer Games Design

Dark Souls Inspired Environment

A game ready environment in UE4 heavily influenced by the 'Dark Souls' franchise. My plan was to create a fantasy graveyard that had fallen into disrepair. This project provided specific challenges in thematic lighting, organic modelling and level design which all helped me to become a better environment artist.



Holly Woolford

woolford92@gmail.com
https://linkus.artstation.com

BSc (Hons) Games Concept Design

Cultural Influence in Character Design

An exploration of different societies and cultures past and present and how they can influence designers in their own ideas. Areas investigated include fashion, beliefs, folklore, religion and more. My goal is to produce high quality iconic designs and showcase my results.



Harry Wrzyszc

harrywrzyszc40@googlemail.com
www.artstation.com/artist/harrywrzyszc

BSc (Hons) Computer Games Design

Exploring Customisation for Racing Games in Unreal Engine

Many racing games now allow players to fully customise their vehicles. To reach this goal myself I have created a vehicle to an industry standard with all the parts needed to allow for customisation. I have created the customisation framework for this within Unreal Engine 4.



Alvin Wu

alvinkienmanwu@gmail.com

BA (Hons) Games Art

Artorias - Dark Souls

A project into my studies for character modelling and creating armour themed around the videogame 'Dark Souls' for a character named Artorias. In the project I looked into how to create a character in armour using 3D programs such as Zbrush and 3Ds Max to create life into a character.

Games Programming



Andrew Bean

tiberianfest@gmail.com

BSc (Hons) Computer Games Design and Programming

Integration of Mobile Phone Features in Virtual Reality

Virtual Reality can often be too immersive, with users missing phone calls, text messages or other notifications, while using a Virtual Reality Headset.

My project aims to integrate a mobile phone's notifications in Virtual Reality and produce an artifact that can interact with both phone and a Virtual Reality kit.



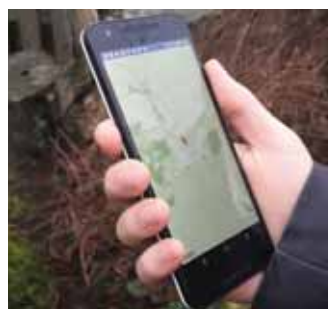
Jack Bennett

jackleebennett@hotmail.com

BSc (Hons) Computer Games Design and Programming

AI Village in Unreal Engine 4

My project, created in Unreal Engine 4 contains an AI that will do daily activities such as eat, sleep and interact with each other. The AI will choose tasks to complete throughout the day depending on the different meters they will have.



James Bushnell

uk.jbushnell@gmail.com

BSc (Hons) Computer Games Programming

Location-based Fitness Game

This android game utilises GPS location tracking as a tool to inspire users to exercise through in-game activities. My project also monitors smartphone hardware sensors to gather useful movement data and displays a real-world map with effective mechanics using Google Maps API.



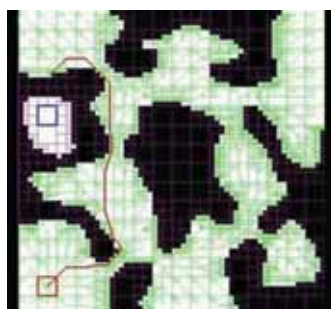
Catalin-Alexandru

Dogariu

BSc (Hons) Computer Games Programming

Performance gained from Memory Management

Digital games use a lot of resources, how those resources are managed in different types of situations has a significant impact into how well the game can run, how big the game can be and how good it can look. This project will research and investigate which techniques are best for common situations in games.



Nicholas Kelly

Nick.s.k@hotmail.co.uk

BSc (Hons) Computer Games Programming

Real-time Strategy Pathfinding Improvement

In Real-time Strategy games, there is still certain challenges that pathfinding algorithms encounter from game-to-game. Further research into the area of Real-time Strategy pathfinding algorithms could potentially aid in determining a solution to one or many of these problems.



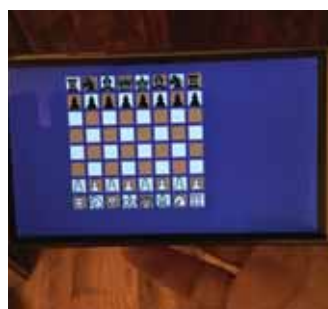
Daniel Lloyd

d.lloyd1@outlook.com

BSc (Hons) Computer Games Programming

An Adaptive Poker AI

An AI agent capable of playing optimal Heads-up Limit Texas Hold'em Poker against a human opponent. Its playstyle will be adapted to exploit the opponent for maximum profit.



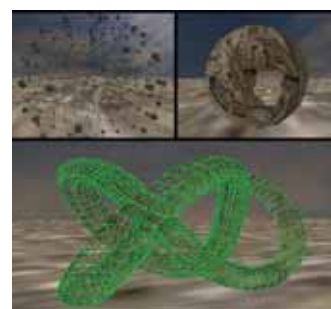
Peter Lynch

petelynych94@gmail.com

BSc (Hons) Computer Games Programming

Cloud-based Server for Turn-based Mobile Games

A cloud-based server system to handle online components of turn-based multiplayer games (Chess, Checkers etc.) such as matchmaking, login details and verification, tracking of statistics, ensuring moves made in game are legal.



Imad Malik

imad.malik95@gmail.com

BSc (Hons) Computer Games Programming

Real-time Destructible Objects

Objects fracturing has been implemented in many applications using pre-backed model, the aim of this application is to show objects can be made to fracture in a real-time environment dynamically.



Mark Mansell

mark-mansell@hotmail.co.uk
www.markmansell.co.uk

BSc (Hons) Computer Games Design and Programming

Mental Asylum - Strategy Horror Game

3D Horror Puzzle Game made from scratch using: Blender3D (3D Modelling), GIMP (Texturing), Unity3D (Engine), C# (Language), Crazy Bump (Normal Mapping). puzzles, avoid jump scares and escape the underground facility.



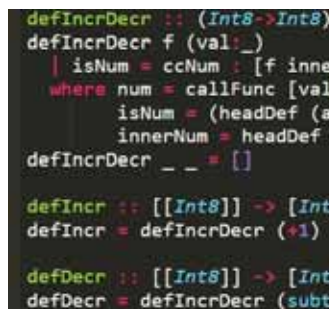
Daniel McCue

danielmccue@outlook.com
https://danieladamccue.wordpress.com

BSc (Hons) Computer Games Design and Programming

A Survival Game with Procedural Terrain Generation In Unity

A post-apocalyptic, randomly generated platformer game, with base building and survival elements. The world will be randomly generated to give a sense of the unknown and drive the player to explore every time they start a new game.



Santarii McQuilkin

wizardqwerty@gmail.com

BSc (Hons) Computer Games Programming

2D Procedural Generation Algorithms in a Functional Paradigm

A real-time procedurally generated 2D voxel planet developed in a functional paradigm, making use of the benefits of a pure functional language in parallelisation.



Rui Mitchell Da Silva

ruimitchelldasilva@gmail.com

BSc (Hons) Computer Games Programming

Real-time Metallic Deformation

Few games demonstrate realistic mesh deformation when it comes to the destruction of metallic objects. This project focuses on simulating metallic deformation within real-time games. The developed algorithm takes into account the accuracy, graphics, and real-time application of the solution.



Paul Orgill

paul_orgill@hotmail.co.uk

BSc (Hons) Computer Games Programming

Real-time Skeletal Tracking of the Human Hand

Computer vision is an upcoming and exciting subject that uses specialist equipment such as the Microsoft Kinect to achieve real time detection of objects such as hands. This project explores the idea of accomplishing the same results without the aid of expensive hardware but by using everyday technology such as webcams.



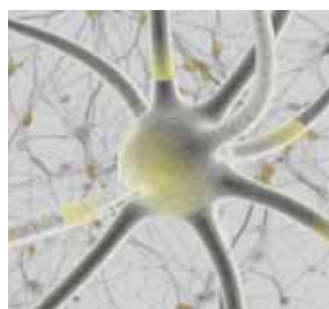
John Oswin

jafoswin.94@gmail.com

BSc (Hons) Computer Games Programming

Creation of an Evolving Agent

The creation of an evolving agent which will be able to be placed into a number of game scenarios and challenges using "Machine Learning" to complete them.



Benjamin Owen

benjamin.owen1995@gmail.com

BSc (Hons) Computer Games Programming

Using Academic AI to Create a Learning Algorithm in Games

This project explores how Academic AI can be used to create an opponent that learns how to play a game, and how to play against an opponent, in a similar way to a real human player.



Kieran Roberts

kierantmr@hotmail.co.uk
http://kierantmr.wixsite.com/kierantmr

MEng (Hons) Computer Games Design and Programming

Mobile Battle Arena Unreal Engine 4

I've created a battle system that can be implemented into a future mobile game. Using the Active Turn Based Combat concept, players will choose how they play out a turn and then every character in the game will complete the turn simultaneously. The aim is to defeat your enemies before they defeat you.

Games Programming



Joseph Ryan

j.dryan@hotmail.com
www.joeyryan.co.uk

BSc (Hons) Computer Games Programming

Snow Simulation

The purpose of this project is to research and understand the current existing techniques used for the representation of snow as a 3D aspect in video games. The simulation of snow inside these video games will include such aspects as creation, accumulation and deformation.



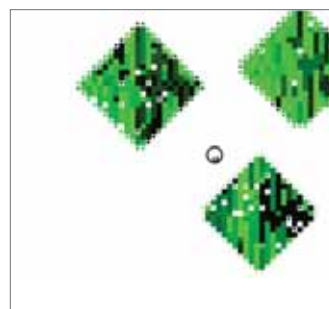
Thomas Saville

t-saville@outlook.com

BSc (Hons) Computer Games Programming

Augmented Reality Throwing Game

Augmented reality brings games into the world around you, without directly impacting it. This mobile game grants you the ability to throw objects at your surroundings without worrying about what you might hit or having to clean up afterwards.



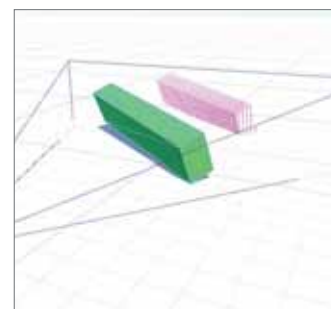
Peter Scorgie

scorgie89@hotmail.com

BSc (Hons) Computer Games Programming

Artificial Life and Associated AI Techniques

This project aims to look at different techniques used in the creation of artificial life (A-Life). This project will be modelling a simulated environment with A-life agents. The agents will make use of AI techniques such as neural networks, genetic algorithms, and cellular automata.



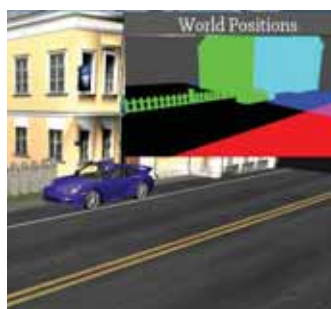
Alexander Scott

alexanderscott@outlook.com
https://alex-scott.co.uk

BSc (Hons) Computer Games Programming

Using the Cloud to Synthesise Virtual Laser Scanner Data

The aim of this project is to develop software for a virtual test tool which offers scalable computational performance, utilising various Cloud Services and networking techniques, for synthesising clouds of points from a virtual 3D world whilst being real-time and low-latency.



Aaron Smith

BSc (Hons) Computer Games Programming

Assessing the Performance of Ray Tracing within a Real-time

This project investigates the different effects that could be implemented using ray tracing. Using a deferred shading system, data is passed onto the graphics card where all the ray tracing will take place.



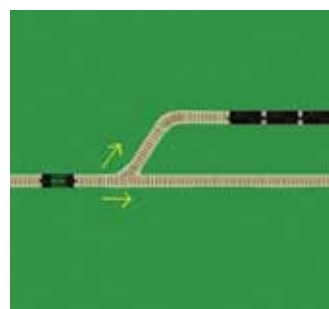
Samuel Smith

12ssmith1@gmail.com

BSc (Hons) Computer Games Design and Programming

Classic Survival Horror Tech Demo

A tech demo for a classic survival horror game influenced by the old 'Resident Evil' games using Unity. The demo is set in a prison and has the player start their adventure in a solitary isolation cell.

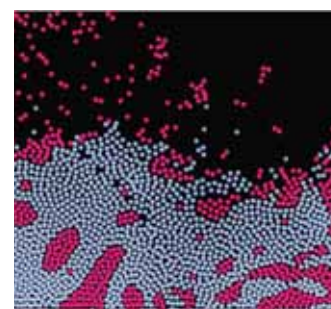


Russell Stocking

BSc (Hons) Computer Games Programming

Simulation of a Train Marshalling Yard

A simulation of a train marshalling yard where trains sort and prioritise outgoing wagons while finding optimal paths and avoiding collisions.



Ashley Sutton

ashley.suttontdev@outlook.com

BSc (Hons) Computer Games Programming

Real-time Fluid Dynamics Simulation

A real-time simulation of a chosen technique of fluid dynamics, that represents how computationally heavy a physics-based simulation is, on a computer and how it compares to previous implementations in this field.



Alisdair Wright

AlisdairTW@gmail.com

**BSc (Hons) Computer Games
Programming**

Real-time Global Illumination

The implementation of a Real-time Global Illumination lighting model into a 3D graphical environment to correctly reciprocate the effects of light bouncing off solid and liquid surfaces to create visual phenomena such as caustics and colour bleeding.

Geography and Mathematics



Amelia Burnett

ameliaburnett@rocketmail.com

BSc (Hons) Mathematics and Statistics

Statistical Modelling of Stock Market Behaviour

Stock Market analysis and prediction is a widely researched area; with a successful forecast comes the potential for large returns. With the use of time series methods and statistical analysis large stock indexes will be modelled including the exploration of the forecasting ability.



Chloe Edgington

chloeredgington@hotmail.co.uk

BSc (Hons) Geography

Importance of Twitter Both During and After a Natural Hazard

Natural hazards such as flooding and earthquakes are a constant threat to everyday society. The type of communication during these events is changing as technology evolves. This project evaluates the use of social media both during and after events by analysing Twitter and gathering opinions from professionals.



Sophie Jenkinson

sophiejenkinson@msn.com

BSc (Hons) Mathematics and Statistics

Mosquitoes Suck! Mathematical Modelling of Zika

Mathematical modelling has been used for over 100 years to provide an understanding of disease transmission. This project looks into the modelling used in the basic malaria models and how modelling is being used in the fight against the Zika virus, a disease that is becoming more prominent in South American countries.



Sam Pillow

sampillow@hotmail.co.uk

BA (Hons) Geography

'Landmark Architecture' in Birmingham - Ugly or Beautiful?

Upon discovering examples of unique, modern architecture in Birmingham, I set out to understand the variety of perceptions that exist towards architecture and what impacts they have on the city's population. From talking to members of the public, I look to understand the many complexities of appearance and opinions.



Timothy Redman

timothyredman93@gmail.com

BA (Hons) Geography

The Decline of British Live Music Venues: Can We Save Them?

An investigation into the decline of Britain's live music venues and what could be done to halt or reverse this. Using questionnaires and visual observations to discover what modern attendee's want from these cultural spaces and relevant literature to draw out wider patterns and themes across the country.

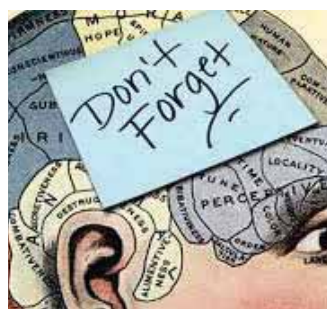


Matthew Sellers

BSc (Hons) Mathematics and Statistics

A Model to Predict a T20I Cricket Match Involving England

Twenty20 is the shortest form of cricket, it has been played at an international level since 2005. Prediction models are used in the betting industry to predict the outcome of the game; to create the companies odds. The developed model will predict the outcome of England's T20 games using logistic regression analysis.



Cara Williams

BSc (Hons) Mathematics and Statistics

A Mathematical Model Demonstrating Factors Affecting Memory

This report seeks to investigate factors that can affect a person's short term memory. Research conducted displayed the main influences to be alcohol, smoking, stress, diet and sleep. Each factor tested through a questionnaire and memory tests to demonstrate how influential they can be with regard to short term memory.



Michael Beddard

mwgbeddard@gmail.com
www.mwgbeddard.co.uk

BSc (Hons) Music Technology

The Creation and Application of Acoustic Drum Samples

My project involved sampling the components of an acoustic drum kit, using them MIDI-programmed in a mix context versus live takes recorded traditionally. I then gained listener feedback on preference and asked them to identify which mix used samples.



Joshua Bellingham

joshuabellingham12@gmail.com
https://musicaljoshcom.wordpress.com

BSc (Hons) Creative Music Technology

Acousmatic and Drum and Bass

This portfolio of compositions and the associated dissertation will highlight the differences and similarities between drum and bass and acousmatic music. I will be highlighting the principles and techniques used in these opposing genres within the music world.



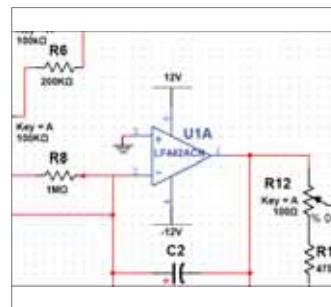
Nicholas Chantrell

nc96000@gmail.com

BSc (Hons) Music Technology

Artificial and Environmental Sounds in Soundscape Composition

Soundscapes are audio recordings of a natural environment. We can hear many details in these recordings such as the weather, wildlife and human impact. Soundscapes can also be composed artificially. My project investigates the relevance of artificial sounds compared to environmental sounds within soundscape composition.



Jamie Downen

jamiedownen@gmail.com
jamiedownen.co.uk

BSc (Hons) Music Technology

Analog Modular Synthesizers: Circuit Design and Functionality

An investigation into the circuit design and functionality of an analog modular synthesizer. This project focuses on the inner workings of various modules of a modular synthesizer, and the endless ways they can be connected to produce new sounds.



Elizabeth Haywood

liz.haywood21@btinternet.com

BSc (Hons) Music Technology with Management

Gender Equality in the Music Industry

An investigation into gender equality in the music industry. My project focuses on the behind-the-scenes roles such as producers, engineers and music business careers. I want to know why there is such a low percentage of women to men working in these roles and what we can do to change this.

Networking, Security and Forensic Computing

Sponsor

ACH Crisford Charitable Foundation

Andrew Crisford is a Computing graduate from Staffordshire University



Jonathan Begley
blackhawklab.ddns.net

BSc (Hons) Digital Forensics

A Cloud Based Endpoint Detection and Response Tool

Every day another company falls victim to a data breach. Traditional prevention methods are no longer effective at preventing and containing targeted attacks. Now EDR tools are required to detect and remediate the attacker. Blackhawk is a cloud based EDR tool providing 'rapid scalability and uncompromised security'.

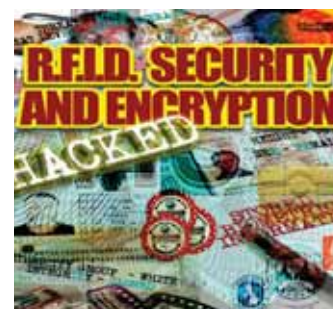


Adam Benjamin
adamrb@hotmail.co.uk

BSc (Hons) Forensic Computing

An Investigation into Digital Watermarking Embedding

This project is aimed towards determining the quality of open source watermarking by simulating the process of embedding whilst further evaluating the level of deterioration of the watermarked image with the original file.

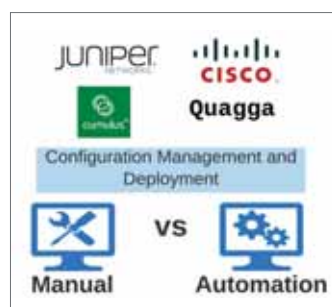


Terence Broadbent
terence.broadbent@btinternet.com

BSc (Hons) Cyber Security

RFID Security and Encryption

While RFID technology may be excellent at speeding up repetitive and essential tasks such as passing through Airport Security and paying for everyday essentials, it can also leave the owner at serious risk of wireless identity theft.



Omer Chohan
chohanomer@gmail.com

BSc (Hons) Network Computing

Automating Network Device Configuration Generation and Deployment

Configuring network devices requires a user to connect to the device via console or TTY lines, manually type in the vendor specific syntax to configure the device. The project's aim is to remove the need for a user to know the vendor specific syntax and manually configuring the device by using automation tools.



Mathew Hobday
mathew.hobday@gmail.com

BSc (Hons) Forensic Computing

Operating Systems: As Secure as the Developers Say?

To find the potential vulnerabilities in any OS is a difficult process; exploiting them is even harder. The aim is to use the latest vulnerability scanning tools and exploitative software, to break open the latest operating systems and show how tough the security is.

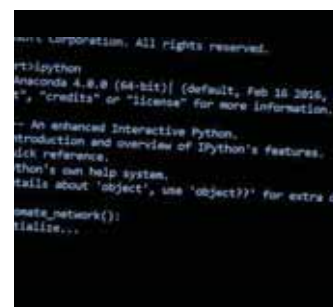


Thomas Johnson
tomjohnson79@gmail.com

BSc (Hons) Forensic Computing

Forensic Analysis of a GPS Receiver

Forensically analysing a GPS Receiver to reveal the best forensic software package. Could this data be used for law enforcement and on a factory reset is all personal data deleted permanently or is it still recoverable?



Bartosz Kaminski

BSc (Hons) Network Computing

Operational Automation Tool in Small to Large Scale Networks

Automation CLI tool for operations on networking devices. Allowing the user to shut/unshut interfaces or to take a device out of service without logging on to the device. While taking a snapshot of the current settings, before performing changes for easy rollback.



Lukasz Malendowicz
lukasz.malendowicz@outlook.com

BSc (Hons) Forensic Computing Steganography Detection Software

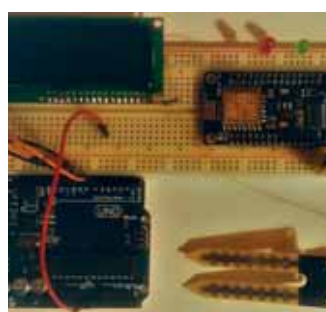
Steganography technology has become a common practice and a large amount of stego-software is available online. These require minimal computer skills to be used, this is the reason that software capable of detecting stego files would be a valuable addition to a forensic investigator's toolset.



Stephen McCue

BSc (Hons) Digital Forensics Computer Forensics Investigation Triage Tool

The creation of a forensic triage tool, that will have the capability of running the required tools and tasks for the basic live system forensic investigations within one executable program.



Ronald Mutezo

BSc (Hons) Computer Networks and Security

IoT and WSNs in Smart Irrigation

The Internet has brought together consumer goods, vehicles, manufacturing and engineering components, everyday objects/appliances and much more. The Internet of Things (IoT) is now a great area of technical, communal, and commercial importance. It has brought about a massive transformation on how we now work, entertain and exist.



Ebuka Nrialike
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BSc (Hons) Computer Networks and Security

IPv6: Transition Mechanisms

Published by the IETF in 1998 followed by its worldwide launch on June 2012, IPv6 was designed to solve the long standing issue of IPv4 address depletion. This report examines IPv6, its low adoption rate and the transition mechanisms available.



Samuel Osman
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BSc (Hons) Computer Networks and Security Is your Education Network Secure?

This project researches LAN design, network media types and network security, before producing guidelines which enables a school to be able to implement a secure and redundant network. A monitoring tool has also been developed allowing a user to see Syslog messages from within the school's networking equipment.



Ross Palmer
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BSc (Hons) Forensic Computing Open Source Triage Forensics

Open Source Triage Forensics is a software tool and accompanying website which provides both technical and non-technical users the ability to extract evidence and analyse a device for Actionable Intelligence. The software targets a live suspect machine and is aimed to reduce the forensic backlog Forces currently face.



Jonathan Peach
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BSc (Hons) Forensic Computing Investigating the Methodologies for Cracking WI-FI

The purpose of the project is to investigate the vulnerabilities associated with the WI-FI authentication methods available and then to plan and implement the mitigation of the vulnerabilities to reduce the impact associated with these vulnerabilities.



Paul Sharp
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BSc (Hons) Computer Networks and Security

Remote Troubleshooting and Alerting for WLANS & LANS

This project researches wireless technologies and common problems found in IEEE 802.11 networks before designing a prototype network analyser to periodically check for issues and inform an engineer via email if issues are present on the network.

Networking, Security and Forensic Computing



Amanda Smith

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BSc (Hons) Forensic Computing

Child Exploitation and Pornography

Children are exploited over the internet every day. Unfortunately, this is the main crime that is happening and being dealt with in digital forensic laboratories all over the country. In order to try and prevent this happening so much, a list of guidelines have been produced, in order to combat exploitation online.



Felicity Stanley

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BSc (Hons) Forensic Computing

An Investigation into Possible Data Loss Issues

An investigation into possible data loss issues that may occur within an organisation. Proposing ways data loss can be prevented or detected and also demonstrating techniques that can result in a data loss.



Jagdish Tank

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BSc (Hons) Computer Networks and Security

CCTV Systems in Networks

This project focuses on the usage of CCTV systems within networks. Different types of cameras will be discussed as well as how they impact the network in terms of traffic. The behaviour of traffic will be analysed under various scenarios (e.g. QoS) to see what results can be obtained.



Nieve Whitehurst

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BSc (Hons) Forensic Computing

A Database for an Automated Comprehensive Notes Generator

A MySQL and Java-based program that is designed to collate the information in a case and create a report denoting all pieces of evidence found and its metadata. This can save time and make sure there are no missed details in a case when creating a court report.



Sally Wright

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BSc (Hons) Digital Forensics

Data Recovery of Wiped Smartphones

People who commit criminal offences and know the condemning data their phones hold, try to delete the data on their phone by wiping it. This project will use data recovery methods to retrieve the data back of wiped smartphones and evaluate the suitability of the methods used against the investigation taking place.



Darren Yates

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BSc (Hons) Computer Networks and Security

The Performance and Security of Virtual Private Networks

In any network there will always be remote users requiring access to resources within the office, this is only obtainable by implementing a Virtual Private Network (VPN). How secure are these VPN's over the different software and hardware firewalls and does the type of firewall used have any effects on the performance.

Sponsor



William Banks

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BSc (Hons) Web Development

Fly Fishing Website

This website will give the user the ability to search for their next fishing location using Google Maps and fisherman who like to tie their own flies the choice to buy all the materials or flies via Amazon API and a how to tie the fly step by step.



Richard Barber

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BSc (Hons) Web Design

Nutrivore - A Web App to Encourage a Sustainable Lifestyle

With obesity rising, food shortages worsening and climate change already an increasing danger, this project investigates the way design techniques can be used to encourage and teach people to grow their own produce and become more self-sufficient.



Sam Blundred

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BSc (Hons) Web Development

Down Right Perfection

I am frustrated about the lack of game based applications suitable for adults with Down's Syndrome. Applications that are easy enough for use seem to be aimed at children, which seem to be condescending. This project will fill that gap by creating a web application to develop the skills of adults with Down's Syndrome.



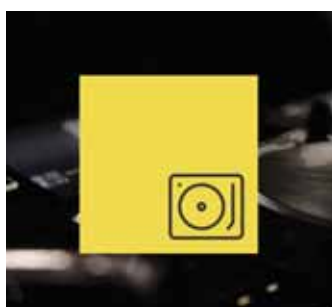
Alex Boffey

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BSc (Hons) Web Development

Mathsense - An Adaptive Learning Platform for Mathematics

Targeted at undergraduate students, Mathsense is a web based adaptive learning platform for mathematics. By immersing users in an encouraging environment where studying is enjoyable and progress is rewarded; mathsense supplements the tuition provided by their institution, ultimately advancing their education.



Daniel Bovey

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BSc (Hons) Web Development

Web Audio Mixer

A Javascript library and web app that calculates and schedules tracks to form a continuous mix, in the browser. By estimating the BPM and time stretching a track using the Web Audio API, the app can automatically crossfade and perfectly mix tracks that you decide on, either by uploading MP3s or connecting SoundCloud.



Jake Cobley

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BSc (Hons) Web Development

A Cross-Platform Budgeting Application

A budgeting web application to help individuals, couples and families manage their finances.



Jake Hannington

www.theColourCreative.co.uk

BSc (Hons) Web Design

Tackling Climate Change with the World Wide Web

Animal agriculture is responsible for having a devastating impact on our planet which results in deforestation, ocean dead zones, world hunger and pollution. Creating an interactive journey will provide an alternative way of living reducing the users carbon footprint and becoming aware of the industries secrets.

Web and Multimedia



Lee Hayward

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BSc (Hons) Web Design

Universal Maths

Mathematics is one of the most important subjects in schools and without it, there are many jobs you are unable to get. Universal Maths is a site that will enable children in KS1 to learn maths using fun elements such as Games, Animations and Quizzes based in the universe.



Steven Hooton

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BSc (Hons) Web Design

Revision Web Application for Learning Difficulties

A revision web application for Key Stage 2 primary school children that is designed to fit the needs of Dyslexia and A.D.H.D learning difficulties. It will be customisable to fit specific needs of the learning difficulties, so that everyone has to same chance to learn.



Thomas Longland

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BSc (Hons) Web Development

Gigs Website for Local Area

Gigsaroundtown is a website that utilises a user's location to show them what gigs might be going on in their area. This could be little gigs at pubs or big gigs at arenas or clubs.



Jodie Maddox

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BSc (Hons) Web Development

Sports Scheduling Application

Design and development of a sports scheduling web application that plans tournaments and sporting events. Its main feature is making sure that the tournament is not led by the type of sport but the user has full control over the layout.



Crystal Mason

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BSc (Hons) Web Development

T.A.D.S.

Learning outside of school is a vital part of education. My application T.A.D.S. (Teaching Assistant in Digital Services) is a web application that helps to reinforce what children are currently learning in schools.



Aaron McCoy

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BSc (Hons) Web Design

A User Payment Interface for a Vending Machine App

The vending machine market has seen a decline because of the decrease of cash in people's pockets. To help jumpstart the market, a user interface for a progressive web app has been designed. It allows the users to order and pay through the app with a selection of payment options.



Dayne Middleton

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BSc (Hons) Web Design

Website and App Companion Prototype Healthcare System

This project is a prototype healthcare system that consists of a website and a companion application (on multiple devices) that helps to prepare NHS patients the prehabilitation process before undergoing upper gastrointestinal surgery.



Rachael Oakley

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BSc (Hons) Web Design

Your Perfect Day

Your Perfect Day is a wedding planning web application which focuses on user experience and closing the gender gap in wedding planning. It combines a range of wedding planning tools into a single web application that are flexible for the user when planning.



Chad Rebisz

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BSc (Hons) Computing Science: Web Development

Inkdex Mobile Application

A new social media application developed on iOS based around Instagram but for sharing images of tattoos as well as using the app to locate and read reviews of tattoo shops around a users' location.



Alexander Taylor

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BSc (Hons) Web Development

Key Stage 2 Education Application

An education application which acts as a supplement to a student's main school studies. The student's teacher creates the content for use within the app, which will be a mixture of lessons and exercises to gauge the student's understanding of the lesson. This content is then consumed via the application by the student.



Dafydd Thomas

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BSc (Hons) Web Development

Cross Platform Web-based Game

Can a web-based game adapt to the capabilities of the devices/browsers being used? The aim of this project is to showcase that web technologies could be used to make progressive web apps using a game as a driver to show adaptability.



Jayme Tibbatts

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BSc (Hons) Web Development

Web Application for Producing Customisable Data Analysis

The objective of this project is to create a web application that will consume big data and allow the user to query and show customised snapshots in the form of numbers, graphs and info-graphics, based on the data available from the big data source.



Laura Varney

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BSc (Hons) Web Development

A Multi-Platform Motivational Fitness Application

A fitness tracking web application aimed at motivating a user to become more physically active.



George Wheat

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BSc (Hons) Web Design

Web Page Solution to Resolve Resource Heavy Systems

A web page solution created for schools to display content relevant communication e.g. Letters, awards and staff changes. The web page is designed to target both the needs of parents and students.



David Whilock

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BSc (Hons) Web Development

Interactive Mathematical Web Application

An interactive web application designed to support users in the process of learning or recalling mathematical material by providing additional resources for those that rely on the more traditional drill-based method of learning.



Grant Williams

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BSc (Hons) Web Design

Kinaesthetic Learning Style Sci-Fi Site for Young Adults

Creating a website for Science Fiction fans, aimed at young adults available across all devices with interactive elements, incorporating Kinaesthetic Learning styles which would benefit young adults to learn and interpret new facts and information.

Web and Multimedia



Sally Williams

BSc (Hons) Web Design

Integrating 360 and 3D Technologies in Familiar Locations

Does engaging with contemporary web media prior to visiting a location enhance a visitor's experience on arrival?

Using Staffordshire University's campus as a source, my project will determine whether to integrate 3D pictures or use gmaps to support the distance of the current location.

staffs.ac.uk/gradex

 **#StaffsUniGradex**

