COMPUTING AND COMMUNICATION TECHNOLOGIES

Newsletter

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2016
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Welcome to this edition of the CCT Alumni Newsletter. This has been a momentous year for both students and staff. There are so many good news stories to share. I will highlight just a few. We are building up quite a track record at hackathons. Students Oliver Poole and Alicia Sykes were both double prize winners this year at Anvil Hack and Start Hack respectively. We also ran our own very successful Hack@Brookes event, which was organised by students Arianna Schuler Scott and Suyash Srijan. The event attracted more than 100 participants who formed 25 teams.

George McDonnell, a final year student on the Computer Science programme, was selected by the committee of the PESE 2 Get Published project to receive funding to present a poster in parliament in February 2016 on the topic of his dissertation: ‘Understanding Traumatic Brain Injury Patient Rehabilitation Through the User-centred Design of a Mobile Application’. George’s abstract was selected as one of only two in the University to receive this opportunity.

We have welcomed two new members of staff this year. Dr Fridolin Wild joined us in January as a Senior Research Fellow, leading the Performance Augmentation Lab. Dr Matthias Rolf joined us in February as Senior Lecturer in Robotics.

This year we have introduced a new MSc programme on Computer Science for Cyber Security. This is an area of growth for the department and we have just appointed a Reader in Cyber Security who will join us at the end of January.

One of the highlights of the year for me was the high impact conference on Social Robotics and AI, which was held at Oxford Brookes University on 15 September. We had some well-known keynote speakers including World Chess Champion Garry Kasparov and Prof Noel Sharkey (BBC TV’s Robot Wars).

I hope that you enjoy this edition of the Alumni Newsletter. Please do keep in touch and let us know how you are doing.

Professor Nigel Crook
BSc, PhD, PFHEA
Head of the Department of Computing and Communication Technologies
Graduate profile

Arianna Schuler Scott

Arianna studied the one-year computing foundation course, followed by the BSc in Network Computing.

What did you think of the course while studying here?
I enjoyed the Foundation year, it was a good intro to the university environment. I made the best use of my BSc – I went on exchange, and did my work placement abroad. The CCT department did a sterling job of getting me to where I wanted to be and I can’t thank them enough. With their support I ran a hackathon which brought students from across the UK!

What were the best bits of studying at Brookes?
The CCT department are wonderfully supportive. Our Student Support Co-ordinators at Wheatley were second to none. I felt supported and could deal with issues that came up.

What advice do you have for others?
Work hard in whatever you are doing and make the most of every opportunity, you will meet people through events and networking. Get to know your lecturers and get involved with your department.

What did you think of the industrial placement aspect of your course?
Fantastic. So, so valuable. From dealing with generic things like payslips and fire exit procedure to learning about development methodology and live systems administration... it was such a good decision.

Where did you do your placement year?
A company called Heyo in Blacksburg, Virginia, USA.

What was your responsibility in the project team?
I was an Operations Engineer by title, which meant that I was looking at process and efficiency, I made a lot of projects for myself. As well as this, I got the chance to be a scrum master, QA specialist and testing bod.

What experience and training did you gain during your placement?
I found a course that I wanted to do, ‘Black Box Testing’ with a leading expert in the field of Context Driven Testing, James Bach. I proposed the company sponsor me and they did. They let me take the course onsite and I carried out my normal work in parallel.

After graduating from Brookes what were the next steps for your career and where are you working now?
I applied to and was accepted for a security focused training course. I applied to and was accepted onto Oxford University’s cybersecurity doctoral programme (a combined MSc then PhD programme).
Triumphs for Alicia Sykes at Start Hack and Oliver Poole at Anvil Hack

Oliver Poole, final year Computer Science student, also attended Anvil Hack at Goldsmiths University in London, an event that focused particularly on creative applications. We asked Oliver to tell us about it.

“I built Dexter, a furry four legged music companion who took the form of a Facebook Bot. Dexter integrated with Spotify to performed analysis on what you like to listen to by looking at what tracks/genres you play most. The user could interact with Dexter by asking him to create Spotify playlists for an occasion, for example you could say: ‘I have an exam next week, can you create a revision playlist’. Dexter used natural language processing to extract the entities from this that the user wanted a playlist and it was for revision. Dexter would then create the personalised playlist that would be unique to the user and filled with music that the user would love.”

Congratulations to Oliver who won two prizes for Dexter: the Spotify prize for the best solution that integrated with Spotify, and the DegenerationIt prize for a creative use of technology and for best blog on their site. Oliver is now in the process of finishing a couple of features on Dexter before submitting to Facebook for the Bot to go live. When this happens anyone with a Facebook account will be able to interact with Dexter. He’s also been in contact with the Spotify engineering team who have expressed an interest and would like to help publicise it when it goes live. We’ll be watching out for that!

Congratulations to final year BSc Computer Science student Alicia Sykes who achieved major success at the recent Start Hack competition in Switzerland, which focused on FinTech, IoT and Mobility.

The event was very diverse with hundreds of participants from all over the world, all with a developer/technical background but using different skills which made for some very interesting projects. The sponsors held a series of mini challenges in addition to the main competition plus a series of interesting workshops, and provided lots of high-value prizes for participants. Alicia told us it was an amazing opportunity to learn new skills, develop with cutting edge tech, and meet very interesting top developers from all over the world.

Alicia’s hack used real time news and social media data combined with AI to give insights into stock price fluctuation. She won the MLH (Major League Hacking) sponsor prize, and the overall main prize.
Social Robotics and AI conference

On 14 and 15 September world leading scientists, technologists and business leaders gathered in the John Henry Brookes building for the first international Social Robotics and AI conference.

Gary Kasparov and Professor Noel Sharkey (BBC TV Robot Wars) were amongst the speakers, together with our own Head of Department Professor Nigel Crook, and Brookes Vice-Chancellor Professor Alistair Fitt.

Delegates included five of our robots with researcher Steve Barker’s Eddie robot demonstrating question-answering, a feat enabled through a unique collaboration with members of the IBM Watson team.

The conference, hosted by Brookes in association with the Association for Business Psychology, uncovered opportunities for collaboration, innovation and invention that will create robust businesses and meaningful work for the future.

Before you came to Brookes what did you study and where?
I studied a BTEC National Diploma in Information and Communication Technology, at Aylesbury and a professional course in programming at EPED (Escola Profissional Educacao e Desenvolvimento) – Portugal.

What made you choose Brookes as a place to study?
I went to an open day and I really enjoyed the atmosphere at the university. In addition, I enjoyed the content of the course that I was interested (Software Development for Business).

What do you think of the course while studying here?
The course is challenging but it gives fundamental IT skills and personal skills such as time management and teamwork. Also, the opportunity to learn and increase my network from talks and events from and leading employers.

What are the best bits of studying at Brookes?
You will have the opportunity to meet friendly people, get support and advice from the excellent teaching staff. Also, access to the great facilities provided by the university.

What advice do you have for others?
My biggest advice is to be proactive in the university. Make the most of it. At the university, you will have the opportunity to make great connections, get support and help and meet excellent people! Get a placement year if you can. It will enrich your skills and help you in the future as you get employment experience.
Women in Technology event

Bedour Alshaigy, Mireya Munoz, Misbah Munir, and Asia Bee were invited to BBC headquarters in London as a part of Women in Technology event which was targeted towards skilled computer scientists and recent university graduates.

The event offered a great insight into the various applications of technology within BBC Digital, in addition to details about current career opportunities within different divisions. Guests had the opportunity to network with other female students from other universities, share experiences with them, in addition to meeting recruitment managers. The event was hosted in conjunction with London Technology Week. The team were interviewed during the event, and this is what Misbah Munir had to say:

How did it feel to be invited to the BBC HQ in London to be part of the Women in Tech event?

Amazing! It is not everyday we meet all the brilliant women who are future tech leaders.

Do you feel that this has helped to open up new career opportunities for you?

Indeed. Also, it gave me insight into the applications of my current project.

What was the highlight of the event for you?

Research projects being done by the BBC RnD team and their mission statement for bringing diversity in their culture. But the best bit was to visit the main office and know about the culture of the company. Lastly, I did notice quite a lot of females leading the teams.
Research to help improve the lives of people with type 1 diabetes

Oxford Brookes have been awarded a major European project which is part of the EU Horizon 2020 programme called ‘Patient Empowerment through Predictive PERsonalised decision support’ (PEPPER).

The project is running from 1 February 2016 until 31 January 2019 and includes the following partners: Imperial College London, University de Girona, Girona Biomedical Research Institute, Romsoft SRL and Cellnovo Ltd. Clare Martin, Arantza Aldea, Rachel Harrison and Dan Brown are involved in this project.

Diabetes is a widespread health condition that lasts for life. According to Diabetes UK, there are 3.5 million people in the UK who have been diagnosed, as well as an estimated 549,000 individuals who do not realise that they have it. Type 1 diabetes often appears in childhood, but it can also occur in adults. For example the Prime Minister, Theresa May, discovered that she had it in 2012.

People with type 1 diabetes traditionally manage their condition by drawing blood from their fingertips several times a day to test their blood sugar levels in order to calculate a dose of insulin to inject. If the dose is too large it can be fatal however.

The advent of wearable technology offers hope both to adults and parents of young children with the condition. A growing number of people now administer their insulin via a wearable pump, and many also wear continuous glucose monitors. Oxford Brookes University is currently leading a team of international experts who are working on utilising such technology, together with artificial intelligence, to give people freedom from daily decision making.

The PEPPER project draws together computer scientists, clinicians and industry leaders to create a personalised decision support system for diabetes management. Research is being conducted into the development of an artificial intelligence combined with predictive computer modelling, both of which will be integrated into the system. The project is also examining the extent to which human behavioural factors and usability issues have previously hindered the wider adoption of such personal guidance systems.

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement number 689810. For more information, please visit the website: www.pepper.eu.com
Postgraduate Student profile

Simon Azzopardi MSc Computing 2008-2009

After graduating from Brookes what were the next steps for your career and where are you working now?
As soon as I completed my course, I returned to Malta and joined a small software house. My role was to take over the sales and marketing function of the company. In the four years working at this company, I experienced a lot of very interesting aspects of the commercial world, including increasing equity value in short periods of time, mergers and acquisitions, turning technology into scalable products, developing sales channels, and developing an entrepreneurial product incubator.

Today, I have opened my own company, Tain and Able, that deals with product acceleration; that is helping companies convert their intellectual property or value-add into products and scale at an accelerated pace. I also work with local entities to develop Malta’s start-up scene, using both a community up and government down approach.

What so far have been the best moments?
Some highlights must have been: Being part of a company sale, winning seven figure contracts and leaving employment, feeling anxious yet looking forward to the challenge ahead.

What so far have been the most challenging moments?
A major challenge was when my CEO at the time was diagnosed with cancer and had to be out of action in a very short time for some 8 months. This was a very emotional time for me, as it forced me to understand and appreciate the personal relationships developed at work, as well as their families.

What advice can you give to others wanting to start their own businesses?
Think lean! Go to startup events like start up weekend. Be around people who are also interested in start ups. Join a community of people who could support you through this process. Find a mentor and use that mentor to guide you and validate your reasoning.

What would you like to see for the future for your business?
The vision for my company, Tain and Able, has always been to strengthen its relationships with technology start-up communities, through guidance and coaching that works.
Computing and Communication Technologies

One interesting project leads to another!

Reader and lecturer Dr Peter Ball, PhD student Cristian Roman and postdoc researcher Ruizhi Liao have been collaborating with ETHOS, a network of social entrepreneurs and innovators, on the GEOmi Parking project, an ETHOS inspired initiative which aims to ‘take the pain out of parking’.

The Brookes team have developed an in-car sensor that, when located in a nominated car, detects vacant parking spaces. The information is then uploaded to a server, via a 3G/4G phone link, and pops up on a map showing the space’s location. GEOmi’s website gives a rather more technical description of the system which was road-tested (sorry) around Guildford. The concept having been proved to work, investigations are now underway into the possibility of using buses and taxis, vehicles that are regularly driving city routes, to host the sensor.

The contacts the team made during the project have opened up other research possibilities, one of which is a European project looking at the deployment of charging stations for electric vehicles (EVs). Project RELIANT aims to explore and demonstrate a new public urban vehicle management service that will make optimal use of a city’s future EV infrastructure, bringing together traffic flow, parking, EV charging points and electricity distribution / usage. Peter Ball commented that after working on the parking sensor project: “we’ve got these broader links which involve universities in Holland, Italy and other places... networking, and what goes into it, has been really valuable.”

Alumna gives inspiring speech at graduation ceremony

It is an honour to be here today with you all to celebrate your academic success. Around nine years ago I was standing where you are standing right now. I remember feeling proud of myself for having completed my degree. I felt a weight of responsibility from my parents had lifted as I accomplished that milestone. I remember feeling excited about the future, about what I would write on those first pages of my life as a graduate. But I also remember feeling scared for all the unknowns as I had only planned what to do until the graduation moment.

This has inspired me greatly to not let opportunities in life pass by me. Inspired me to be part of something, to be a creator, to help and hopefully inspire others. I would like to talk about failure.

Many people are scared to try to achieve their dreams, to try new things because they are scared to fail. They fill themselves with a pressure to succeed at all costs without ever failing. Failing is part of the journey. You learn by making mistakes, and then by not making the same mistakes again. If you don’t try then you have already failed.

I would also like to talk about passion. It is so important to find what you are really passionate about. When you work on something that you really care about, something that you love, it becomes truly enjoyable.

Now a few words about success. The meaning of success is quite subjective. It varies depending on the critic’s eyes. Some of you might feel that you failed because you didn’t get a first. Others might feel you succeeded even if you just passed because you were the first in your family to graduate. It is really about expectations that you set for yourself and that you allow others to put on you.

But let me tell you that success is a lot more than just reaching your destination and moving on to another. It is about the entire journey. Which methods you’ve applied to get there, who you had around you supporting you or not, what you have learnt and what you will take with you. It’s about all those times you failed and all the passion that drove you to continue. It’s about being able to focus on a detail without losing perspective of the bigger picture.

Success for me is not about how much money or items I have but it’s about defeating all the odds. Is being able to wake up every morning and say that I love what I do, I love being part of the games industry. It’s about being able to say that I’m OK with myself, I’m living and I only regret what I haven’t yet done.

Growing up I knew I wanted to study computers and I knew I needed to be involved in something creative. I had no idea how to get there but through hard work, perseverance and determination I got there. I achieved a degree in computer science, a First, without having ever studied programming before the first class at university. After
graduating I secured myself a job in the games industry, as a programmer. Today I am the co-founder and technical director of a games studio. I am one of the directors of a co-working space in Leamington Spa and I am on the board of UKIE, a games trade association. Who would have thought? Me... that girl who grew up in Mozambique.

Don’t be fooled into thinking this was an easy journey. It never is. So my advice to you is this. Surround yourself with people that matter. With people that cheer your success and tell you truths in hard times. Find who you really are and what you are really passionate about. Don’t let your fear of failure get in the way of reaching your goals. Don’t let people dictate what you should think or do. Trust yourself to know what you want, what you have and what you should do. Don’t expect everything to land in front of you on a silver plate. Plant your efforts, water them with responsibility, integrity, initiative and imagination. Harvest your achievements and feel proud of yourself.

Keep challenging yourself. Remember that if you feel too comfortable where you are then it is time for a change. Embrace that chance. Keep learning. You will never know enough, you will never know it all. So be realistic, be humble and inspire others. Don’t let closed doors stop you from jumping through that small hidden window where you can create your opportunities. Remember, you have all the tools to build your future.

Computing alumna Helana Santos gave an inspiring speech at the department’s graduation ceremony on 20 June. This is what she told the graduating students.
CONTACT INFORMATION

Department of Computing and Communication Technologies
Oxford Brookes University
Wheatley Campus
OX33 1HX

Alumni Office
Oxford Brookes University
Headington Campus
Gipsy Lane
OX3 0BP

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For enquiries please contact: cct-enquiry@brookes.ac.uk

All information is correct at the time of going to press (January 2017).
Please refer to the University’s website for the most up-to-date details.