

BeFOSS 2017



Fri 27th January 2017
Computer Science Building at Queens University Belfast



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TECHNOLOGISTS: IT'S IN YOUR DNA

Welcome to BelFOSS 2017

I would like to welcome you all to the new Computer Science Building at Queen's University Belfast. We are delighted that so many of our students are taking part in this event which can be used in Degree Plus applications. We are also happy that IT professionals from around the city, and beyond, are joining us in celebrating the impact that free/open-source software has in our working lives.

I would like to extend my thanks to all the sponsors who have supported the event. AllstateNI are an important local employer who we work closely with on many initiatives and VanRath play a vital role in recruiting IT talent for the many new companies arriving in Belfast's blooming tech community. We'd also like to thank OpenDataNI and Flax & Teal returning to BelFOSS this year and choosing to sponsor the event.

I would also like to take this opportunity to thank the staff in our school and the Belfast Linux User Group for the role they have undertaken in organising this event.

Open-source software plays a critical role in the research carried out by the School of EEECS at Queen's. My own interests include high-performance and distributed computing using software such as Linux, GCC and freely licensed libraries. Supporting our projects there is also a raft of software including OpenLDAP, Git, Gitlab, DokuWiki and Openstack.

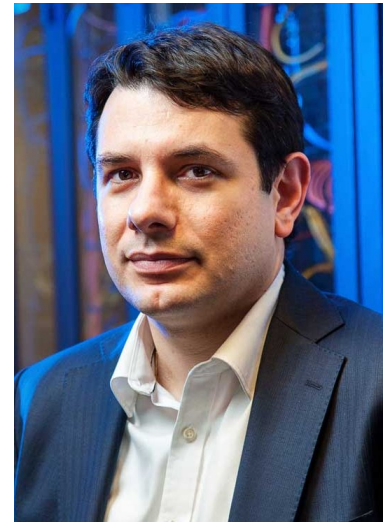
Our School is the largest and most dynamic in the University and employment success rates for graduates from the School are greater than 85% within six months, a statistic not bettered by many others.

There is industry involvement in all our courses through embedded teaching, placement or scholarships. Undergraduates also spend one full paid year working in industry as part of their degree (optional for students on the MEng courses and also Electrical and Electronic Engineering).

We offer six undergraduate pathways (subjects) covering all aspects of Electronics, Electrical Engineering and Computer Science. Employment opportunities are excellent across all pathways.

I hope you enjoy the day and take inspiration from the many interesting talks scheduled.

Prof Dimitrios Nikolopoulos, School of EEECS, Queen's University Belfast



Prof Dimitrios Nikolopoulos
Head of School

About BelFOSS 2016

In January 2016 we organised an event to showcase and raise awareness of Linux and Free/Open-Source Software (FOSS) use in Belfast. Aimed at students, IT professionals and hobbyists the talks showed how FOSS software is used locally in charities, in research and in global businesses. The event raised awareness about demand from employers for skills and careers in Linux/FOSS.



In 2016 the talks included Certification & Careers, High Performance Computing, Puppet and OpenStack. Due to the success of the event the Belfast Linux User Group began organising a follow-up for 2017. Members of the local Belfast Linux User Group have been instrumental in the planning, organisation and delivery of the talks at the BelFOSS events.



IT RECRUITMENT EXPERTS

VANRATHTM
Strategic Recruitment

VANRATH have been the leader in IT recruitment in Northern Ireland since 2001. We have worked with some of the top companies in the sector to source Security Engineers, pentest Specialists and Architects.

Since 2012, VANRATH have seen a steady rise in the demand for security focussed IT professionals, alongside an increase in the number of security certifications being sought by both junior and senior engineers. The market has seen many changes in the breadth of roles that are now available, so whether you like the challenge of a start up, or the scope offered by a multinational, there are roles to suit every taste.

For those with a security background, or anyone wanting to find out more about available roles suited to their skill set, talk to one of our experts today.



Ryan Quinn
Senior IT Recruitment Consultant

ryan.quinn@vanrath.com
028 9033 0250

Ryan has worked in the recruitment sector for 13 years' and specialises in Software recruitment, from Senior Development Engineers to STEM graduates. With a Masters Degree in Computing and having previously worked in the IT sector as a Java Developer, Ryan is ideally placed to help candidates take that all important next step in their IT career. Ryan has worked in partnership with many FDI clients as they set up in NI, and has helped find the best talent to move companies from zero hires to several hundred staff.



Phil Gamble
Senior IT Recruitment Consultant

phil.gamble@vanrath.com
028 9033 0250

Phil is a Senior IT Recruitment Consultant with over 12 years' success in consistently delivering on challenging IT recruitment campaigns across the Northern Ireland IT market. Before working in recruitment, Phil graduated with a 2:1 BSc in Management and Information Systems and gained industry experience working with Microsoft. He covers all areas of the IT sector, working as a specialist technical IT recruiter for both Global IT companies and IT start-ups. Working closely with clients and candidates, Phil can advise how to attract the most experienced and talented people available.

About the Belfast Linux User Group

BLUG id est Belfast Linux User Group is an (in)formal group of professionals and hobbyists, meeting monthly, who have a common interest in Free Libre Open Source Software in the Belfast area. Monthly topics are varied covering Linux, Networks, Open-Data and programming languages such as Rust and Go. The meetups are welcoming and usually in a pub!

For more info:

www.meetup.com/belfast-lug/



About the Venue



Those who attended BelFOSS 2016 will remember the Elmwood Building with its tiered seating. Elmwood was a temporary location for Computer Science at Queens and in September 2016 we moved into the new purpose-built building you see today. With its distinctive coloured glass panels it is a feature on the Malone Road.

The new four-storey 3,000m², building, with a glazed front elevation, is built around and extends the concrete frame of

the pre-existing structure. It links with the Computer Science accommodation in 14 and 16 Malone Road, which were also refurbished.

The building offers a variety of computer labs (including 2 large labs seating 150 and 200 students), project spaces, breakout rooms, a Student Hub spanning three floors, academic and clerical offices, postgraduate spaces, a lecture room seating 200 and additional smaller specialist labs including high-performance computing, an innovation lab and soon a cyber-security education lab.



In keeping with the University's commitment to sustainability, the building has been designed to minimize its impact on the environment and to achieve the target of Building Research Establishment Environmental Assessment Method (BREEAM) "Excellent" rating.

Start date: December 2014

Construction completion: Summer 2016

Operational by: Start of 2016/17 academic year

Capital investment: £14m



Flax & Teal collaborates on open technology projects, and provides consultancy services for open technologies. This includes language training, web platforms, data analysis and numerics.

Open solutions provide a unique opportunity to support local demand for complex, wide-ranging technologies through on-the-ground suppliers without vendor/supplier lock-in, offshoring of sensitive data or third-party agreements. Flax & Teal uses this technology to keep clients in control of their infrastructure, whether serving to the web, performing analysis or running computing systems.

If you have a project that could benefit from an open approach, are seeking opportunities to work with exciting new technologies or would be interested in strategic collaboration on open projects, please get in touch.

info@flaxandteal.co.uk

About the Speakers

Lorraine Barry

Lorraine Barry is a Geographical Information Scientist with 19 years experience in the field of GIS and spatial analysis. She has worked for over 12 years at Queen's University Belfast in teaching, training and developing Geographical Information Science for research. She has a strong research interest in FOSS4G (Free and Open Source for Geospatial). Lorraine was well received as a speaker at BelFOSS 2016 and returns to update us on her recent award at the FOSS4G conference.



www.qub.ac.uk/sites/GeographicalInformationScience/



<https://uk.linkedin.com/in/lorrainebarrygis>



https://twitter.com/lorraine__barry



Mihai Bilauca

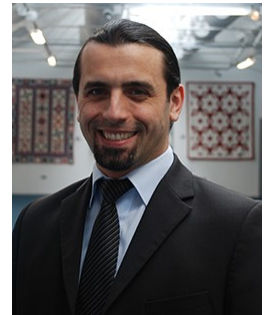
Dr. Mihai Bilauca is leading the development of Limerick's Digital Strategy which aims to lay the foundation for a Sustainable Smart Limerick City, Region and Communities. Having worked for Limerick for 15 years Mihai is now heading the Digital Strategy and Customer Services departments in Limerick City & County Council in redefining the citizen and customer experience and the digital customer experience. Mihai worked in various roles in the ICT Department and in 2013 as part of the Senior Change Management Team that oversaw the transformation of the former city and county councils into a new organization based on a new operating model. In his spare time Mihai continues his research in mathematical programming and optimization modelling methods. Mihai received the Master of Science (M.Sc.) and Doctor of Philosophy (Ph.D.) from University of Limerick, Ireland and the software engineering degree from "Stefan cel Mare" University of Suceava, Romania.



www.limerick.ie



<https://twitter.com/LimerickCouncil>



Jamie Bentham

Jamie Bentham works at Deloitte Digital Belfast as a consultant working primarily on the backend systems for a number of clients in financial services, public and private sector companies across the UK. He previously worked as a research intern in SAP and is now involved in Deloitte Digital's innovation lab working on blockchain solutions.



<https://www.linkedin.com/in/jamie-bentham-724aa06b>



About the Speakers

Steven Boyd

Steven is a Geographic Information Consultant working in the Spatial NI team in Land and Property Services developing web services and web mapping applications across Government. Steven has been a volunteer with the Humanitarian OpenStreetMap Team (HOT) for nearly 4 years and running Missing Maps mapathons since the projects launched in late 2014. Steven is a Chartered Geographer specialising in Geographical Information Systems and a Fellow of the Royal Geographical Society.



<https://twitter.com/penfoldxxl>



www.missingmaps.org

Matt Curry

Matt Curry is a passionate technologist and busy dad from Scottsdale, Arizona. He is currently working at Allstate Insurance, helping to drive a cultural transformation which Allstate has labeled Composed Labs. Matt is a software and hardware geek with a demonstrated history of using software to solve infrastructure challenges. He is a strong believer in maximizing developer efficiency.



Prior to Allstate, Matt worked at PayPal for 8 years. There he undertook a variety of roles from Business Analyst to Capacity and Performance Specialist to Solutions Architect. While at PayPal he worked on projects related to holiday capacity planning, data center movement, code release efficiency and self-healing infrastructure.



<https://uk.linkedin.com/in/mattjcurry>



<https://twitter.com/mattjcurry>

Jolene Dunne

Jolene joined Proofpoint in April 2016 as a Software Engineer, where she primarily works in server-side development for an email security platform using a range of open-source technologies. She also organises the Belfast chapter of Papers We Love, a community of programmers who enjoy discussing research papers from academia and how they relate to the industry.



<https://www.meetup.com/Papers-We-Love-Belfast/>



<http://www.linkedin.com/in/jolenedunne>



About the Speakers

Christopher Fearon

As head of Black Duck's Open Source Security Research Group, Christopher Fearon is leading an initiative to redefine open source vulnerability disclosure and management processes. The goal is enabling customers not only to maximize security, but also to better understand and reduce their security risks.

Christopher has deep expertise and experience in application security as well as in incident response and strategic research planning, including the adoption and effective implementation of open source. He has held a number of security roles in financial services and other private sector industries.

Christopher's Northern Ireland-based security group is a key component of Black Duck's global Center for Open Search Research and Innovation (COSRI).



<https://uk.linkedin.com/in/christopher-fearon-38942718>

Steven Hunter

Steven Hunter works at FABlab Belfast as a S.T.E.A.M Officer and FAB guru. A self-taught hacker/coder with qualifications in Mechanical Engineering allow him to take "almost" any idea and turn it into a reality. He has 13 years experience in Blender 3D in addition to other open-source staples such as Inkscape and Gimp. As a keen supporter of open-source software Steven encourages its use in all his endeavours.

FabLab Belfast is a Fabrication Laboratory with the ability to make "almost" anything. Equipped with cutting edge CNC machinery and an array of skills to allow anybody to come in and create and innovate.



www.fablabni.com

Ryan Kilfedder

Ryan Kilfedder has worked as a web and software developer since 2006. In that time he has worked on both proprietary and open source frameworks, and has watched PHP grow and mature.

Ryan currently works in a management position within The Tomorrow Lab. He has a bitbucket account full of half-baked ideas.

Ryan will talk about how until a few years ago, PHP didn't have a satisfactory dependency management system, then Composer, burst onto the scene and, not only solved dependency management but, along with a few other projects made a massive change to modern PHP development. Ryan will show what changed, why it mattered for PHP and what the lessons are for the rest of the open source community.



www.thetomorrowlab.com



About the Speakers

Paul Mayne

Paul Mayne spoke at BelFOSS 2016 and returns in 2017 to speak about Containerization and Docker. Paul joined Liberty IT's Emerging Business & Technology division in August 2016 as a Senior Software Engineer having previously worked at Allstate for over 13 years. His background is in DevOps tools/infrastructure, programming and web development with a strong focus on Open-Source applications used for Continuous Integration & Continuous Delivery pipelines.



Liberty IT creates world class IT solutions exclusively for U.S. parent company, Liberty Mutual Insurance, developing a wide range of enterprise scale, customer focused solutions which leverage cloud technologies, agile engineering and disciplined practices.



<https://uk.linkedin.com/in/paul-mayne-2212849a>



<https://twitter.com/PaulMayne75>

Dr Suzanne McLaughlin

Suzanne is the Open Data Programme Manager at Digital Shared Services in the Department of Finance. She previously worked in Land & Property Services and was responsible for the development of the Spatial NI portal. She is passionate about all things data and has a PhD from UUC relating to GI and coastal vulnerability.



<https://uk.linkedin.com/pub/suzanne-mclaughlin/4/707/9b6>



<https://twitter.com/SuzieMcLaughlin>

Ciarán Molloy

Ciarán Molloy joined Deloitte Digital upon completing the MSc Software Development course at QUB in September. After joining the company as an Analyst Software Engineer, Ciarán has performed roles including back-end development and DevOps engineering on a number of projects in the Financial sector.



<https://www.linkedin.com/in/ciaran-molloy-04b133b5>



OpenDataNI is a web portal providing sets of data from government departments with the potential to encourage new commercial opportunities and drive economic growth and innovation across public and private sectors

About the **Speakers**

Chris Nixon

Chris is senior software developer on the R&D team at Mintel Ltd. He's been programming for over a decade and has a long standing interest in, and strong opinions about Free Software, Developer tooling, Programming Languages and the intersection of theory and practice in computer science.



<https://www.linkedin.com/in/chris-nixon-36b75476/>

Rose Kane-Quinn

Rose is a software developer with an art school background, currently working for Neueda Consulting. She recently led a team that won the Open Data NI Education competition and loves anything to do with data visualisation.



www.neueda.com

Dr Sandra Scott-Hayward

Dr Sandra Scott-Hayward, CEng, is a Lecturer (Assistant Professor) at Queen's University Belfast. In the Centre for Secure Information Technologies at QUB, Sandra leads research and development of network security architectures and security functions for software-defined networks (SDN). Sandra is Vice-Chair of the Open Networking Foundation (ONF) Security Working Group and a project leader of the Open Source SDN Project Delta, a penetration testing framework for SDN.



<https://uk.linkedin.com/in/sandra-scott-hayward-2a0b1531>

Dr Phil Weir

Phil Weir is a coordinating member of the Belfast Linux User Group. Phil has used a wide range of open source software in academia and industry, researching floating structures in the Antarctic and simulating problems in bio-engineering. He is a web developer and mathematician, and is particularly focused on international open source consultancy.



<https://uk.linkedin.com/in/phil-weir-033b5a62/en>

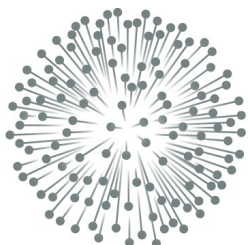


<https://www.flaxandteal.co.uk>



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Notes



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Your business objectives are at the forefront of all we do, from the smallest design details to the overarching strategy, and everything in between. Put simply, we ensure your site is fast, looks great, is easy to update, works on anything that can display a website and reaches as many people as possible.

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Timetable

9:00 – 9:30	Registration	
9:30 – 9:40	Welcome	Prof Stan Scott (QUB)
9:40 – 10:00	Introduction to FOSS	Phil Weir (Flax & Teal)
10:00 – 10:25	FabLab: Innovation through Fabrication	Steven Hunter (FabLab)
10:25 – 10:40	Software Defined Networking	Sandra Scott-Hayward (ECIT, QUB)
10:40 – 10:55	FOSS4G	Lorraine Barry (QUB)
10:55 – 11:05	Missing Maps	Steven Boyd (DoF)
11:05 – 11.25	Break	
11:25 – 11:55	Open Source Smart Limerick & Urban Digital Transformation	Mihai Bilauca (Limerick Council)
11:55 – 12:20	A Year of OpenDataNI	Suzzane McLaughlin (DoF)
12:20 – 12:30	Telling Stories with D3.js	Rose Kane-Quinn (Neueda)
12:30 – 12:50	Blockchain & Deloitte SmartIdentity Contract	Jamie Bentham & Ciarán Molloy (Deloitte Digital)
12:50 – 13:30	Lunch	
13:30 – 13:50	Open Source Security	Chris Fearon (Black Duck Software)
13:50 – 14:10	Email Threat Prevention	Jolene Dunne (Proofpoint)
14:10 - 14:30	How composer Saved PHP	Ryan Kilfedder (The Tomorrow Lab)
14:30 – 14:55	The Rust Programming Language	Chris Nixon (Intel)
14:55 – 15:05	Break	
15:05 – 15:30	Docker for Developers	Paul Mayne (LibertyIT)
15:30 – 16:10	Open Source: It's Not About Software	Matt Curry (Allstate)
16:10 – 16:40	Panel Discussion	
16:40 – 16:45	Summary & Close	
16:40 – 17:10	Practical 'Missing Maps' Session	Conor Graham (QUB) & Steven Boyd (DoF)

After-Event Social

Ye Olde Eglantine Inn
32 Malone Road
Belfast

The Belfast Linux User Group invite anyone who wants to continue the discussions over a few beers to The Eglantine Inn. The Eg also have a dinner menu available between 5pm and 7pm - 33% discount for attendees!

