BelFOSS 2018

Fri 16th March 2018
Computer Science Building at Queens University Belfast

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Welcome to BelFOSS 2018

I would like to welcome you all to the Computer Science building at Queen's University Belfast. I am pleased that so many of our students are taking part in this event, not just as participants but as speakers, with Andrew and Dominik sharing their experiences building freely licensed software.

The demand for skills in free software from companies around Belfast is significant and at Queen's we are actively promoting developments and initiatives in this sector.

I would like to extend my thanks to all the sponsors who have supported the event. Andrew Mallet of the Urban Penguin who excels in Linux/FOSS training, MCS who play a vital role in talent acquisition for the many new companies arriving in Belfast's blooming tech community and SpotX who are growing their Belfast operation with engineers, QAs and DevOps. It is also great to welcome back the support of Flax & Teal fresh on their success in multiple open-source projects and Philips healthcare.

Prof William Scanlon
Head of School

To attendees it may seem that events such as BelFOSS pass off with ease but the contribution of many of the staff here in the School of EEECS and the Belfast Linux User Group have been integral to its success in 2016, 2017 and now 2018. Particularly I would like to thank Neil Lowry, Brian Fleming, Stuart Ogg and everyone in the EEECS general office and IT teams.

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

Prof William Scanlon, School of EEECS, Queen's University Belfast

About **BelFOSS**

BelFOSS began with a desire to share the benefits of free software and to raise awareness of the benefits of FOSS and the skills needed by employers in Belfast for Linux / FOSS software. Aimed at students, IT professionals and hobbyists the talks show how FOSS software is used in local charities, research, government and business.

Over the past 3 years the BelFOSS events have covered diverse topics including OpenStack, Puppet, Docker, Rust, D3.js, Gitlab, Satellite, parallel programming, fabrication, open data, GeoScience and blockchain. In 2018 we touch on big data, software architecture and Nim. We hope to have brought you the best that FOSS has to offer and inspired you to explore these technology choices but above all to share what you develop and learn with others.

About the **Venue**

The new Computer Science building at Queen's University, Belfast opened in September 2016. The four storey 3,000m^2 building with glazed frontage has been custom-built for teaching computer science in a modern setting.

There are multiple computer labs seating 400, an innovative makerspace, many project rooms for group work, a 200-seater lecture room and social areas.

FOSS Community in Belfast

We are lucky to have a thriving meetup community around Belfast on many topics, not least freely licensed software that students and enthusiasts can use, share, contribute to and distribute. Some of those groups include:

Belfast Linux User Group

The Belfast Linux User Group is an informal group of professionals and hobbyists, meeting monthly, who have a common interest in Free Libre Open-Source software. Monthly topics are varied covering Linux, networking, open-data and programming languages such as Rust and Go. The meetups are welcoming and usually in Farset or a pub!

🌐   www.meetup.com/belfast-lug/

NI Raspberry Pi Jam

The Raspberry Jam is a regular, free and family friendly event, based in Belfast that has the purpose of providing access for young people & adults to activities/workshops in Computer Science, Electronic Engineering and related subjects. It is run in collaboration with Farset Labs, Queens University and a number of other organisations.

🌐   niraspberryjam.com

OpenData NI

It is recognised that opening up our data is the right thing to do in terms of transparency, accountability and efficiency of the Public Sector. The Open Data NI portal has been created to facilitate easy access to Northern Ireland public sector data for both reuse and redistribution.

🌐   www.opendatani.gov.uk

Open Data Coding Challenge

The Project Lintol team will officially open the "Open Data Coding Challenge" at BelFOSS 2018. The aim of the Coding Challenge is to build processors for Lintol – the data validating tool. The Lintol processors will help solve real-world validating issues identified by government departments. Participants in the coding challenge will be able to choose from a list of issues, and build processors as creatively and innovatively as they like.

The Project Lintol team will be available throughout the day at BelFOSS 2018 in the 'First Derivatives' room adjacent to the BelFOSS talks, so that people can start working on the the ODCC.

🌐   lintol.io

About the **Speakers**

Dr Andrew Bolster

Technologist, founder of multiple technology-based groups and organisations, an award winning researcher, community leader, and an occasional public speaker. Founding Director of Farset Labs, Northern Ireland's First Hackerspace, located in Weavers Court Business Park, Belfast, developed while finishing a Masters in Electronics and Software Engineering at QUB. Farset Labs now provides the technical and entrepreneurial community with a place to share resources, knowledge and experience in a relaxed atmosphere.
Andrew recently joined Alert Logic working on Big Data science and security analytics in the cloud.

🌐 farsetlabs.org.uk

in https://www.linkedin.com/in/andrewbolster/

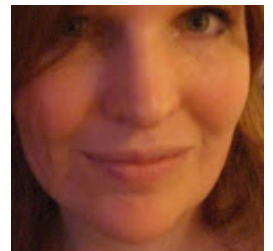🐦 https://twitter.com/Bolster

Dr John Bustard

Dr John Bustard is a lecturer at Queen's University in the Department of Electronics, Electrical Engineering and Computer Science. He teaches software engineering, data analysis and ethical and legal issues in cyber security, and his greatest passion is supervising high-tech student projects. With the support of a very talented group of students and staff he manages the school's Makerspace and IoT Lab. These facilities include support for 3D printing, electronics, robotics, computer vision, deep learning, game development and much more with new tools and support being added all the time. The space has enabled students and staff to develop a variety of advanced technology projects, almost all of which are made possible using sophisticated open source software and hardware.

in https://www.linkedin.com/in/johndavidbustard/

Helen Early

Helen is a producer and content creator, working in multiple informative media. She has extensive experience, locally and internationally, working with video and broadcast media, particularly in media production and development. Helen has worked on projects for BBC (UK), RTE (IE) and PBS (US).

🌐 https://www.lintol.io

in https://www.linkedin.com/in/helen-earley-76086325/

About the **Speakers**

Andrew Mallet

With the upsurge in practical based exam within the Linux certification arena including Red Hat, SUSE, Linux Foundation, Mirantis and OpenStack being able to navigate the Linux command line interface quickly and efficiently is as important as it has ever been. Often the focus is on new Linux skills, Docker, OpenStack, Ansible and so on; but you cannot be truly effective in any of these without great command line skills which just aren't a focus in many learning paths. This presentation will focus on what you need to know to be effective with Linux, both old and new. Command line short cuts that help you navigate the CLI quickly and recall history by using shortcuts such as ESC + . to retrieve the last argument

in   https://www.linkedin.com/in/theurbanpenguin/

🐦   https://twitter.com/theurbanpenguin

🌐   www.theurbanpenguin.com

Paul Mayne

Paul has recently joined Philips Healthcare as a DevOps Engineer to lead the introduction of DevOps in Belfast. He has over 19 years IT experience, predominantly in the insurance sector with a background in DevOps tools and Infrastructure as Code, including a strong focus on open-source applications used for continuous integration & continuous delivery pipelines. Recent projects have included deploying Container as a Service platforms using configuration management tools in AWS cloud environments.

In his spare time Paul is a Docker Community Leader, helping to organise and run the Docker Belfast Meetup as well as championing the use of Docker and container technology though talks and demonstrations.

in   https://www.linkedin.com/in/paul-mayne-2212849a/

Aislinn McBride

Aislinn is an experienced developer and architect. She's a technical leader in Kainos and has worked with a range of technology stacks and delivery approaches. Her passion is keeping it simple and working with teams to build solutions that solve real business problems. She is passionate about the tools and techniques that allow teams to deliver at pace with the highest levels of quality.

in   https://www.linkedin.com/in/aislinn-mcbride-a86bb03a/

About the **Speakers**

Diarmaid McGowan

Diarmaid McGowan is an enthusiastic IT professional with 22 years of experience working with both proprietary and open source software.
In 2015 Diarmaid joined Allstate's agile innovation hub @CompozedLabs as a full stack software engineer.
Diarmaid recently moved into an Application security engineer role where he is part of a team enabling Secure Software delivery in an Agile environment.

in   https://www.linkedin.com/in/diarmaidmcgowan/

🐦   https://twitter.com/diarmaidmcgowan

Heather McNamee

Heather McNamee (Open Strategy Partners) is a specialist in technical communications with an MSc in Learning and Technology. Her open source gateway experience was when she started using Drupal in 2002 working in a not-for-profit. She came for the free code, and stayed for the community. She contributes through event organization, training, documentation and facilitation. You can find her as @nearlythere on Twitter and Freenode.

🐦   https://twitter.com/nearlythere

Andrew Mulholland

Andrew is final year student at Queens studying Computer Science. In his free time, he is lead developer on PiNet and coordinates the Northern Ireland Raspberry Jam. PiNet is a free and open source system for managing large setups of Raspberry Pis, primarily aimed at education and used in hundreds of schools across the world. The Northern Ireland Raspberry Jam is a free, monthly and family-friendly event to get young people hands on with coding / electronics, using the Raspberry Pi.

PiNet — Centralised user accounts and file storage system for a Raspberry Pi classroom.

🌐   http://pinet.org.uk

🐦   https://twitter.com/gbaman1

Chris Nixon

Programming language and systems programming enthusiast

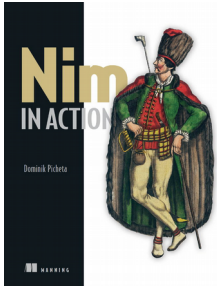in   https://www.linkedin.com/in/chris-n-36b75476/

About the **Speakers**

Dominik Picheta

Dominik Picheta (@d0m96) is a core developer of the Nim programming language, author of Nim in Action and creator of the Nimble package manager. He is currently a Computer Science student at Queen's University Belfast.

🌐   http://picheta.me

🐦   https://twitter.com/d0m96

Ioseph O'Loingsigh

Io has been a developer for over 10 years working in telecoms and financial trading businesses. Io has been with SpotX for 3 years working as a team lead on big data & realtime analytics.

in   https://www.linkedin.com/in/ioseph-o-loingsigh-a010772b/

Jen Hanratty

Jen is an active member of the Belfast tech community, organising both Django Girls and Women Tech Space. She is a self-taught developer, currently working with SpotX on big data applications. Through this work Jen has realised the enormous value and potential in open source software and is passionate about sharing the benefits of its use.

🐦   https://twitter.com/ouidoll

Ronan Bradley

Ronan Bradley is a Senior Big Data Engineer who joined SpotX from BT. Ronan's professional experience varies from embedded programming in C to Hadoop cluster-based streaming analytics in Scala. He is a big fan of everything free (including software, pizza and beer) and has two cats named Jenkins and Oswald.

🐦   https://twitter.com/Ronan_Bradley

in   https://www.linkedin.com/in/ronan-bradley-bb2a292b/

About the **Speakers**

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.

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

🌐   https://www.flaxandteal.co.uk

Martin Woodward

Martin is the Principal Program Manager for DevOps in Microsoft focusing on Visual Studio Team Services. Before that Martin was Executive Director of the .NET Foundation helping drive Microsoft's move to open source. Prior to that he looked after the Java, Linux and Mac tooling in their Developer Division and helped introduce Git into Microsoft. He also was responsible for starting Microsoft's presence on GitHub.

in   https://www.linkedin.com/in/martinwoodward/

🐦   https://twitter.com/martinwoodward

BelFOSS Sponsors

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

Notes

Timetable

Time	Session	Speaker
9:00 – 9:30	Registration	
9:30 – 9:40	Welcome	Prof Dimitrios Nikolopoulos (QUB)
9:40 – 10:15	From the Cathedral to the Bizarre: Microsoft's Open Source Journey	Martin Woodward (Microsoft)
10:15 – 10:40	The Ballad of Farset Labs	Andrew Bolster (Farset Labs)
10:40 – 11:10	Why 20 Year Old Linux Skills Still Matter	Andrew Mallet (The Urban Penguin)
11:10 – 11:25	Break	
11:25 – 11:50	OBIG: The Story of Project Lintol	Helen Earley (OBIG)
11:50 – 12:20	"Come for the tools, stay for the people" building a Makerspace in a University	John Bustard (QUB)
12:20 – 12:40	PiNet - A project that was never intended to be...	Andrew Mulholland (QUB Student)
12:40 – 13:10	FOSS; swipe right or left?	Aislinn McBride (Kainos)
13:10 – 13:40	Lunch	
13:40 – 14:00	The Nim Programming Language	Dominik Picheta (QUB Student)
14:00 – 14:20	Marketing your Open Source Project to Increase Contribution	Heather McNamee (Open Strategy Partners)
14:20 – 14:50	Big Data with Hadoop, Kafka & Druid	Tim Reid, Jen Hanratty, Ronan Bradley (SpotX)
14:50 – 15:10	Docker for DevOps: Containerizing the Pipeline	Paul Mayne (Philips Healthcare)
15:10 – 15:20	Break	
15:20 – 15:40	Accelerating the Web, Intro to WebAssembly using Rust	Chris Nixon (Flexera)
15:40 – 16:10	Node.js It's Just Javascript !	Diarmaid McGowan (AllState)
16:10 – 16:40	Panel Discussion	
16:40 – 16:45	Summary & Close	

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!