PYCON UK 2017

Coders of all levels come together to celebrate Python. **Sean McManus** reports

EVENT NAME:
PyCon UK 2017

DATE:
26–30 October

LOCATION:
Cardiff City Hall

In its tenth anniversary year, PyCon UK took place at Cardiff City Hall in October, bringing together professional Python coders, hobbyists, children, and educators.

The programme was varied and packed with ideas, with up to nine streams running at the same time. Among other things, there was an introduction to object-oriented programming, talks on artificial intelligence, and tips on getting the best performance from Python. BBC micro:bit sessions showed how to code the device in MicroPython, and offered advice for those teaching with it.

Mikey Lear and Luke Spademan test a micro:bit-controlled robot

On Thursday, 24 educators attended Picademy, the programme from the Raspberry Pi Foundation that supports them in digital making. Professional coders and hobbyists from the main conference dropped in to help with projects including a man overboard alarm, a spinning pumpkin decorator, and a motion-activated ghoul.

Django Girls ran a one-day workshop to introduce women to programming using the Django web framework. Student Shuping Li took part and said: "The best thing was that it made me feel I was able to use Python despite having zero experience. I went from nothing to making a blog in a day."

Wheely good

Ben Nuttall, Raspberry Pi Community Manager, revealed how the process for installing Python packages has been accelerated on the Raspberry Pi. 'Wheels' are Python packages that have been compiled for a particular architecture. They're smaller files to download, and there's no time spent compiling after you download them. The Python Package Index (PyPI) doesn't support ARM packages, though, so Ben built his own repository, called piwheels. It involved compiling more than 96,000 packages, and a total of over 670,000 version releases, using cloud-based Pis. If you're using Raspbian Stretch, piwheels is already configured as an additional index. For installing a package like NumPy, it could save you over two hours of compilation time on a Raspberry Pi 1.

THE JOHN PINNER AWARDS

This PyCon introduced the John Pinner Awards, named in tribute to the late PyCon UK founder. Ten medals were awarded to recognise those who contribute to the Python community. The first recipients were Cat Lamin, Daniele Procida, Éléonore Mayola, Joshua Lowe, Leona So, Mary Mooney, Sheila Pinner, Tim Golden, Tony Ibbs, and Vincent Knight. Congratulations to them all!

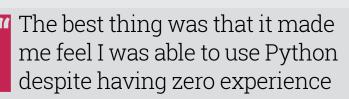The first winners of the John Pinner Award collect their medals

A jewel in the crown

Saturday was children's day, described by Daniele Procida, a member of the organising committee, as "one of the jewels in the crown of PyCon". There was a Code Club, which included a session led by Joshua Lowe. At 13 years old, he is the creator of EduBlocks, a drag-and-drop interface for programming Python that makes it easier to transition from Scratch. At the same time as the Code Club, a Raspberry Jam took place next door. It included an introduction to physical computing with the Raspberry Pi, Minecraft hacking, and science experiments using the Sense HAT.

Right Joshua Lowe kicks off Code Club by introducing EduBlocks

Bottom Right Fiona Murray and Miriam Winkels make a pumpkin decorator in Picademy

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At the end of the day, the children presented their projects to the conference in a session held in the main assembly room. Pi projects included an LED caterpillar, a game using the Python turtle module, and a burglar alarm. The micro:bit was used to make a kindness badge, a calculator, and a Morse code transmitter. The children shared some of their coding experiences from the day, too. One said: "We had to type out things. Type in things. Type out things. Then it worked!" Many of the professional coders in the room recognised that pattern.

On Sunday afternoon, some attendees came together to see how Python can be used to help identify people at risk of developing Alzheimer's disease. The conference ended with a day of programming sprints, including Trans*Code, a hackday dedicated to tackling issues faced by transgender people.

If you missed out this year, you can catch up online. The schedule now includes links to presentations and videos, where available. Find them at **2017.pyconuk.org/schedule**.

Below With over 700 attendees, the assembly hall was often busy

Photo: Sean McManus, www.sean.co.uk