Oscar Byrne

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Motivation

I'm a curious developer with a particular loyalty to Python, although I'll use whatever tool is best for the job. If I learn something new I like to learn how to use it *properly*. What you should know about me: there's nothing better than a neat source file. That means: beautiful interfaces; no fear for refactoring; and, of course, following the style guidelines(!).

Work Experience

Cisco, Software Engineer

January 2016 - July 2016

Acano was acquired by Cisco for $700m, after which I was moved to a new agile team to develop a next-gen, **Android-based** product running on custom hardware. This was a **greenfield project**, and from the beginning I wanted our test strategy to be the best it could possibly be.

Accomplishments:

- Ensured build quality by developing a continuous-integration environment using technologies including: **Jenkins**, **Phabricator** and **Docker**.
- Optimised development cycle with a custom **test runner** able to run tests in parallel and collect useful reports, including screenshots. This involved hacking in **Java**, **Gradle**, and **Python**.
- Improved test validity by constructing an all-**hardware test lab**, including network provisions and remote power switching (there was a risk that early prototypes would burst into flames if left on overnight!).
- Encouraged a move towards behaviour-driven development (BDD) by developing a **Java framework** for writing concise, human-readable tests.

Acano, QA Engineer

October 2014 – January 2016

I joined the QA team at Acano in the first wave of graduate recruits. Proving myself with manual testing and writing test plans, I soon graduated to developing frameworks for **automated tests**.

Accomplishments:

- Greatly improved our manual test coverage by rewriting much of the **test plan**. This had a noticeable effect on the stability of our product.
- Helped to quickly deliver a very technical component (**SIP to H323** bridge) by working closely with a single developer.
- Drastically reduced the development cycle for our client software by championing test automation. I designed and implemented the automation framework, written in **Python** and **shell**, from the ground up to be usable by testers with minimal programming experience. This involved rewriting existing core systems to accommodate the new module and implementing a 'write once run anywhere' system able to run tests on platforms including: **Android, iOS, Windows, Mac** and various **web browsers**.

DESY, Summer Studentship Computing Program

July 2013 – August 2013

A 2 month paid internship working with the world's **most brilliant X-ray source** at DESY (Germany's answer to CERN). Aside from a minor project involving RPC technologies, I cut my teeth on Python developing an automated toolchain for processing tomographic images.

Hobbyist Portfolio

Arduino-Based Synthesiser

https://github.com/oscarbyrne/grains

I became interested in the Arduino platform for generating audio after building some simple audio-based electronic circuits. This has involved developing my own **1-bit DAC**, requiring a **custom PWM** implementation, which I ultimately intend to output audio generated on the chip. Getting this close to the metal was a great experience, and I really enjoyed pushing the limits of the chip.

Python Meta-Programming

https://github.com/oscarbyrne/notes
https://github.com/oscarbyrne/vikings

I am interested in developing beautiful interfaces, to the point where they almost become programming languages in their own right. Python's high capacity for metaprogramming makes this possible. I have **2 projects** available on my github demonstrating this - 'notes', which is a tool for exploring music theory; and 'vikings', the latest iteration of a modern 'text adventure' game I have been toying with for several years (note this is very much a work in progress).

This CV

https://github.com/oscarbyrne/cv

I have written this CV with the help of the **reStructuredText syntax**. This is a markup language designed to compile easily to PDF and HTML, whilst remaining easily human-readable. I honestly think my CV is the best (looking) out there written using this language!

Education

University of Birmingham, MSci Physics

2010 - 2014

For my fourth year project I became involved with **front-line research** in metamaterials, and contributed to a project which was presented as part of the PIERS conference 2014 in China. I chose mostly computing-related modules, including:

- **Computational Modelling of Physical Systems,** for which I implemented a dynamical billiards simulation using **C++**
- **Teaching in Schools,** for which I spent 11 weeks teaching in a Primary school
- **Image Processing,** which mostly focused on algorithms

Sir Thomas Rich's School, Gloucester

A levels:	A*, A, B, C
AS levels:	B
GCSEs:	4 A* passes, 5 As and 2 Bs

Other Interests

- Producing electronic music - I've assembled a **home studio** which I use to make hip hop
- Rock climbing

References

References are available on request