Oscar Byrne

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Experience

Full Stack Developer
May 2018 - July 2018

Globalme

- Adapted an open-source crowdsourcing framework for 2FA authentication via AWS Cognito
- Developed a SPA for database administration (CRUD operations)
- Managed hosted infrastructure via AWS
- Drove automation by creating a highly-modular library of Photoshop functions in Javascript
- Technologies: Python, Flask, Javascript (JQuery and ExtendScript), AWS, PostgreSQL

Automation Engineer
November 2017 - May 2018

Globalme, contracted by Intel

- Managed migration of test development from India to Vancouver
- Refactored large code base (~15000 LOC) to be more maintainable
- Established processes – code review, development phases – for the team in Vancouver
- Mentored (including leading training sessions in Git and Python) a team of 9 manual testers
- Technologies: Python, Robot Framework

DevOps Engineer
February 2017 - August 2017

Ultrahaptics

- Delivered a proof-of-concept CD pipeline for building and deploying VMs
- Maintained Teamcity CI pipeline, including Windows and Macintosh machines (~10 nodes)
- Technologies: Ansible, Python, Bash, Powershell

Software Engineer
October 2014 - July 2016

Cisco, formerly Acano

- Developed a "write once, run anywhere" test framework covering mobile, desktop and web
- Drove adoption of agile work style by championing test automation
- Planned comprehensive testing strategy (including CI with remote teams) for next-gen product
- Analysed VOIP deployments to determine root cause of test failures
- Technologies: Python, Java (including Android SDK), Groovy, Bash

Summer Studentship Computing Program
July 2013 – August 2013

DESY

- Programmatically analyzed the erosion of heart implants via computer vision
- Studied and worked with the world's most brilliant x-ray source in Hamburg, Germany
- Streamlined research by creating an RPC endpoint for sharing experimental data
- Technologies: Python (including the SciPy toolkit), WSDL

Hobbyist Portfolio

Advanced music theory with Python

https://github.com/oscarbyrne/pyatonic

Music theory is one of my passions. I've recently had the opportunity to dive deep into some of the concepts I've been reading about, requiring working knowledge in a host of new concepts from category theory to tree search algorithms. The result is a library of methods ultimately able to demonstrate computational creativity (yes!) by conceptually "blending" musical chords, an algorithm developed as recently as 2015. The code itself showcases my ability to write in a pythonic style: making heavy use of generators, a mastery of Python's data model, and avoiding the over-reliance on classes often found with junior developers.

Resume builder

https://github.com/oscarbyrne/cv

When job hunting I find I spend an inordinate amount of time formatting my resume. To cut down on this time I created a library which creates beautifully-formatted resumes in the time it takes to hit my enter key. By storing the important data - job records and document layout - in a series of easily-editable config files and generating responsive HTML5 via a Jinja2 template, I create first-class resumes in an instant. You're reading one right now!

Bash-embedded Python

https://github.com/oscarbyrne/pysh

Pysh is a tool I created in a bid to elegantly embed Python into Bash. This was a great learning experience for me where I gained an appreciation for the difference between in- and out-of-band signalling, and what exactly a fifo is good for.

Education

MSCi Physics   2010 - 2014
University of Birmingham

During my final year project I became involved with front-line research in metamaterials, contributing to a project presented at the PIERS conference in China. Modules of study included:

- Intro to C++
- Computational Modelling of Physical Systems
- Teaching in Schools
- Image Processing

Other Interests

- Silver smithing, rockhounding and lapidary
- Producing electronic music
- Hikes, salt lamps etc (when in Vancouver!)