Software Engineer

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Skill Summary

Master	**Java, Kotlin**
Journeyman	**Python, JavaScript, C, C++**
Novice	**Swift, Ruby, Scala, Groovy** and **Clojure**

Experience

Independent Game Developer (2016 - 2019)

I recently published RetroWar, a fast-paced multiplayer 8-bit style shoot'em up, using **Kotlin**, **Groovy, LibGDX** and **OpenGL**, on **Steam**. I have released many other games and utilities and am co-organiser of the London Game Developer Lunch. I have a passion for teaching and run my own CoderDojo and publish courses for children.

Principal Developer at Digital Pathways (2014 - 2016)

Digital Pathways was a company that contracted to develop mobile apps for several clients, most notably Global Aware. I was lead developer for a variety of apps including TravaAware, a security app to track staff members in dangerous environments, and Merlin Mobile, a building management system. I used **Java**, **Kotlin**, **CouchDB** and **Swift** to release apps for **Android** and **iOS**. Occasionally I had to use PHP.

Volunteer Teacher at Employ-Ability (2013 - 2014)

I taught IT skills and computer programming to adults and young people with mental health issues and helped to guide them back into employment.

Senior Developer at Locomatrix (2009 - 2013)

Locomatrix produces location based games for mobile devices. I was lead developer of Treasure Hunt, a game which uses visual clues and GPS tracking to lead the player on a tour of local places. For cross-platform compatibility we used **HTML5** and **JavaScript** so our games would run on a large variety of smartphones.

We collaborated with the University of Brighton to create Invisible Buildings, a *Time Team*-like game that uses GPS to allow school children to simulate performing an archaeological dig on their playing field. It was written in **Java** and is available for **Android** and **iOS**. I developed a modular system to allow further games to use the same engine, such as GeoCrash and the 'Yeast of Eden' Augmented Reality experience for English Heritage at Lewes Priory and other historical sites.

I also produced the [Twonger](#) game, a Pong-like mashup of **Google Maps** and **Twitter API** running on **Ruby on Rails** and some interactive art projects with [dreamthinkspeak](#) using **Bluetooth** beacons to accurately locate visitors in a building.

Self-employed (2008)

I sold several of my **Java Swing** applications at [Fantastic Software](#) (such as *Comic Reader Pro* and *Ebook Reader Pro* for reading digital books and comics), and some **Java Android** apps on the [Play Store](#).

Research Fellow at University College London (2003 - 2006)

I was the lead Java programmer on the [NRS](#) (Network Resource Scheduling) project in the Networks group at UCL, managing a small team, and providing quality of service (**QoS**) in high speed fibre optic networks. NRS enabled the High Energy Physics group to reserve guaranteed bandwidth for transferring large datasets, such as those produced by particle accelerators.

I was also main programmer on the [JYDE](#) (Job Yield Distribution Environment) project in the Bioinformatics group. JYDE takes a large task, such as sequencing the human genome, and divides it up into many smaller jobs which are distributed to compute clusters at different sites in **the cloud** to be run in parallel.

I also taught courses on programming, supervised student dissertations, managed supercomputer clusters, designed testbed networks and published two papers.

Formal Education

Currently studying Maths, Physics and Astronomy at Open University

MSc Data Communications, Networks and Distributed Systems
University College London

BSc (Hons, 1st class) Computer Science, Queen Mary, University of London

A levels: Mathematics (A), Physics (B), General Studies (B), Philosophy AS (B)

GCSEs: 9 at grade A and A* (Forest School, London)

Interests: Dancing, teaching salsa, photography, video gaming, yoga, science fiction, cats, dogs.

Referees on request.

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