# **Charles Cochrane**

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BS23 4LL

### **Profile**

A passionate and creative software engineer with a wide variety of experience seeking a challenging role. Hoping to work with interesting and experienced professionals and deliver quality, well designed software. A lover of learning with a strong team ethic.

# **Employment History**

### Self Employed: Independent Game Developer

2016 - Present

Making "RacetronicVR", a time trial racing game for virtual reality headsets and releasing to Steam in December.

### **IBM Corporation: Software Engineer**

2014 - 2016

I was working on the IBM Container Service, a Docker remote registry and container hosting service. Also I previously worked on the Cloud Foundry app hosting service and WebSphere Liberty profile, a Java application server.

#### **IBM Corporation: Technical Consultant**

2013 - 2014

I worked as a data specialist and have grown a strong set of technical and consulting skills, working with many different project teams and clients such as Vodafone and Nationwide to provide masked and live data solutions.

### Intel Corporation: Customer Quality and Reliability Engineer

2011-2012

13 month placement with a breadth of projects, working with customers on hardware, software and manufacturing quality. I gained priceless early experience and self-confidence in large teams and with clients.

### 131 Commando Royal Engineers: Sapper

2009-2011

Trained Soldier and B3 Combat Engineer in the Territorial Army

### Qualifications

### **Plymouth University: BEng Robotics**

2009-2013

Received a 2:1 with honours. Included modules of programming, hardware design, electronics and robotics

## **Bridgwater College: A/AS levels**

2007-2009

3 A levels: Maths, Biology and Physics. 1 A/S level: Computing

# **Skills and Knowledge**

## **Game Development**

After taking a career break in summer 2016 I decided to make a video game. I started by developing RacetronicVR, a time trail racing game built for the HTC Vive virtual reality headset. I used Unreal Engine 4 as the engine and Blender for asset creation. I am hoping to release the game as soon as possible, hopefully by December 2016. Valve has agreed to release the game on their Steam distribution service without the need to go through the Steam Greenlight application process. Working on RacetronicVR I've learnt a lot and it's been really enjoyable, having full creative control and working for myself has been a very different experience. Working in the relatively new virtual reality medium has also been enlightening, having to deal with a lot of deadline uncertainty and interesting work arounds when compared to a more traditional game development experience.

### **Programming Proficiencies**

I am passionate about programming, having produced open and closed source software used by Intel, IBM and their many customers. I am fascinated by highly distributed software, concurrency, parallelism, SOA, scalability, orchestration and containers. I learnt to program using C and C++ throughout my childhood and university, having since also learned Go and Java, most of my experience has been in compiled languages. I have also used JavaScript (Node.js and client side) and Ruby extensively. I ran a Go reading and teaching group and was part of the local Software Craftsmanship community while at IBM. I write a lot of software in my free time and contribute to some open source projects, most of which is available on Github.

I work mainly on Linux or Windows and am comfortable on the Linux command line. I love working with open source software; in standing up many cloud based services I've come to use applications like Nginx, HAProxy, Consul, Docker and Jenkins and the ELK stack often. I have SQL experience, generally with SQLite, and work mostly with noSQL datastores like CouchDB and InfluxDB or Key/Value stores like Redis, Ectd and BoltDB.

### **Hosted Service Experience**

For the last 2 years at IBM I had been working exclusively on large, cloud hosted services. I worked on IBM's Docker container hosting service, a cloud based PaaS. Working mostly in small teams, I was using TDD and agile practices to get work out of the door quickly. Using continuous delivery and thanks to our use of cloud infrastructure, we pushed bug fixes and new features through test environments and to production in hours. I liked working in smaller teams and am happy with not only development, but testing and deployment as well. I understand the challenges associated in running a production service and have experience being on call and dealing with severe incidents.

### **Hardware Knowledge and Robotics**

Although not my chosen career path, I still enjoy robotics in my free time, blending my hardware and software knowledge. During my studies and free time I've produced multiple embedded and robotics devices. Intel also gave me extensive training and experience on the Silicon manufacture processes and on low level computer architecture. I am comfortable and experienced in hardware design, PCB manufacture and FPGA programming with VHDL. With this knowledge I am also experienced in low level coding with C and previously in assembly language. Some project examples:

- ALBot: a machine vision toy able to follow objects and produce music based on its surroundings.
- Cayley 1: a low cost quad rotor helicopter built from scratch with my own flight control software.
- Robomato: a self-regulated tomato growing environment for crop production in extreme environments.

# **Other Stuff**

## **Plymouth University Radio: Radio Host**

2012 - 2013

Hosted the "Rock Show" and co-host a current affairs talk show "News'd and Abused".

## **Interests**

- Video games: from an early age I have been enamoured with video games and now make them.
- Travel: I love backpacking, meeting new people and immersing myself in different cultures.
- Fitness: avid road cyclist, gym frequenter and amateur boxer.

# References

### Available on request