Charles Cochrane

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Profile

A passionate software engineer with experience in corporate, academic and military settings. Seeking challenging and technical roles to learn new and hone current skills, work with interesting and experienced professionals and deliver quality, well designed work. A lover of learning with a strong team ethic.

Employment History

IBM Corporation: Software Engineer

2014 - Present

I work on Bluemix, IBM's cloud based PaaS and WebSphere Liberty profile, a lightweight Java application server. I have good development experience with cloud infrastructure and with application servers and containers.

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

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

Haygrove School: GCSEs

2002-2007

14 GCSEs; 10 A's, 2 B's and 2 C's including Maths, French, German, electronics, physics and ICT.

Skills and Knowledge

Programming Proficiencies

I have a wide knowledge of programming and am happy to demonstrate demos on request. I have produced open and closed source software used by Intel, IBM and their many customers. Most recently I have been working with Cloud Foundry and IBM's Bluemix, a cloud based PaaS. Working with cloud has been a pleasure as I can see the creativity developers and companies bring to fruition using our cloud services. My experience includes:

- Web Programming: HTML5, CSS3 and JavaScript, have produced my own Ruby blog framework.
- Software Development: Java, Ruby, C++
- Low Level and FPGA: C programming, VHDL and Assembly code.
- Platform Experience: Embedded, Robotic, Windows 7 and 8, Linux, Android, Web and Mobile.
- Game programming: C++ with Unreal engine, VR experience
- Machine Vision: Open CV with C++

I run a Ruby reading and teaching group and am part of the local Software Craftsmanship community, who host regular talks and code retreats. I love video games and interactive storytelling, and have developed my own games, such as "Crazed Eye Golf", a virtual reality game for use with the Oculus Rift Virtual reality headset.

Hardware 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 computer architecture.

- Hardware design, PCB manufacture and FPGA programming with VHDL.
- Silicon manufacturing process and reliability studies on electronic hardware and Silicon chips.
- Health and safety considerations and risk management in a lab environment.
- Production of robots, integrating many different components to produce a single system.

Passion for Robotics

From a young age, Robotics has been a fascination of mine. I've produced many projects with a variety of focuses, some of my main interests being: biologically inspired design, evolutionary computation, machine vision, aerial robotics, resource gathering, automated manufacture and autonomous and multi-agent control. Robotics offers me the opportunity to do great work, blending my hardware and software knowledge. 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.

Professionalism and experience

Working at Intel and IBM has taught me a lot about professional standards and teamwork. Also, my time in the military added to my hard working ethic, performance under stress and time management skills.

- Used to working as part of a team in corporate, high pressure environments. Have worked in global teams and enjoy learning from different cultures and countries. Have lead small projects and understand the importance of delegation and team dynamics.
- Great presentation and people skills. I have presented around the country and have given many technical presentations; for example presenting a talk at Stephen Hawking's 70th birthday symposium on modern silicon manufacture. I've had press relations training and lots of client bid and presentation experience.
- Time and project management: setting project milestones, punctuality and meticulous planning have helped me achieve a high working standard. Was responsible for multiple high level projects at Intel and IBM, all of which were delivered to high standards on time, examples of which can be demonstrated on request.

Other qualifications and awards

Plymouth University Radio: Radio Host

2012

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

Haygrove School: Electronics Award

2006 - 2007

I was given the responsibility of being a prefect and updating the student run school website. I received the best student award for electronics for overall effort, quality of work and top grade.

Duke of Edinburgh award: Bronze and Silver 2006 - 2009

Interests

- Intermediate German speaker, going to weekly lessons and (attempting) work in German with native colleagues.
- Fitness: avid road cyclist, gym frequenter and amateur boxer.
- Love of horticulture: automation of tomato production and harvesting is a longstanding side project.

References

Available on request