

## **Work Experience**

**Amazon, Lab126 – Software Engineer II, Technical Program Manager** March 2017 – Present

- Promoted to TPM as team has grown to a size of 12 at present
- Architected software stack from back-end ad exchange, device side logic, metrics, and customer experience spanning multiple teams
- Defined performance/process goals and managed teams to reach those goals

**Amazon, Lab126 – Software Engineer** March 2015 – March 2017

- Joined as employee number 1 on a newly formed device monetization team after senior product manager
- Worked on full spectrum of our startup team, from backend service, device side logic, to frontend renderable; from check in process, build automation, to QA test plan; from documentation, over the air update, to new hire ramp up
- Growing to a team of 7 at present

**IBM, Hardware Acceleration Laboratory – Cloud Engineer** July 2014 – February 2015

- Incubate new system architecture and optimize current system for IBM cloud by merging cutting-edge technology with IBM software and hardware products
- Prototype, design, and implement software to replace the current TCP/IP stack of Erlang Distribution with proprietary technology to achieve a 10x improvement for distributed server on the cloud
- Research, design, and setup experiment to benchmark Baremetal vs Virtual Machine vs Container for a number of metrics on the IBM cloud environment to determine optimal workloads

**IBM, Security Systems – Extreme Blue Technical Intern** May 2013 – August 2013

- Collaborated with two technical interns and one MBA intern to build a technical plan and a business case for a product prototype, from conception
- Took full ownership of product by planning the user interface, user interaction, backend logic, and database, and deciding which features to implement for the current sprint using Scrum Methodology
- Developed a new way of identifying vulnerabilities and mitigations for applications: an automatic threat modeling tool for the IBM AppScan security team, with five patents pending
- One of the final two teams (out of fourteen) chosen to present a business pitch to the CEO of IBM, Ginni Rometty, at the annual North American Extreme Blue Expo in Armonk, New York

**Broadcom Corporation, SoC Group – Software Engineer Coop** January 2013 – April 2013

- Collaborated with multiple teams using JIRA to debug complex software/firmware issues related to VoIP applications on DSL modems
- Worked on feature improvements such as locale support and daughter card bring up
- Gained experience working with the Linux kernel, VoIP systems, SLIC/SLAC daughter cards, and hardware integration (semaphore, PCM, DECT, DSP, ADC, etc.)

**A.U.G. Signal Ltd., R&D Department – Software Engineer Coop** Jan. – May 2010, Sep. – Dec. 2011

- Worked on the satellite interferometry project led by the Canadian Space Agency (CSA)
- Implemented abstruse Matlab/C++ algorithms including calculating satellite baselines, removing earth curvatures, and phase unwrapping to get the final interferogram
- Worked on the Bomb-suit project led by the Defense Research and Development Canada (DRDC)
- Developed communication, time management, multitasking, and organizational skills
- Attained a grade of Outstanding (10 out of 10) on the final supervisor evaluation

## **Summary of Qualifications**

- 5 years of engineering work experience in data center, consumer electronics, healthcare and defense
- Strong system and software design, development and testing skills through IBM, Broadcom and McKesson
- Passionate about software and electrical design and integration shown through DRDC Bomb-suit project, autonomous car project, DARPA UAV competition, and SoC integration at Broadcom
- Excellent ability to acquire new skills and apply them in a professional environment
- Adept problem solver with outstanding teamwork skills
- Goal oriented self-start with the ability to work independently

## **Technical Skills/Projects**

### **Software Design**

- Extensive C++/C# and Java experiences developed through co-op experiences and self-directed projects
- Image recognition and computer vision experiences developed from OpenCV programming
- In-depth knowledge of Windows and Linux OS, and scripting including Batch, Python and Perl
- Sound knowledge of TCP/IP protocols, Unix sockets, and multithreaded programming
- Solid understanding of 3D math, CAD design, make, Processing
- Part time consultant for making website with html, JavaScript, CSS, Backend.js and Ruby on Rails

### **DARPA UAV Competition**

May – December 2011

- Collaborated with two other team members to build an autonomous quad rotor flying robot that can avoid obstacles using computer vision for a competition held by Defense Advanced Research Project Agency
- Integrated 9 degree of freedom accelerometer with ultrasound rangefinder, and magneto sensor to make our initial measuring unit
- Designed and implemented serial communication and electrical speed controlling algorithm using Arduino
- Wrote object recognition, facial recognition and laser tracking algorithm using OpenCV

### **UBC RoboRacers 2010 Competition**

May – August 2010

- Collaborated with three other team members to build a fast and reliable tape following robot
- Designed and built the robotic sensor circuits such as IR sensors for following tape, an H-bridge for forward and reverse motor control, and power distribution circuits
- Programmed an efficient controlling algorithm which enabled the robot to run at optimal speeds, evade obstacles, and switch lanes
- Improved the robot auto-steering mechanism using PID control

## **Education/Interests**

### **University of British Columbia**

Vancouver, British Columbia, Canada

Bachelor of Applied Science

September 2008 – May 2014

Major in Engineering Physics, Electrical Option

CGPA – **82%**

### **Dean's Honor Roll**

April 2009 – May 2014

### **NSERC Undergraduate Student Research Award**

January 2010, December 2011, August 2013

**Interests:** Provincial Swimming Team, disassembling and reassembling complex machines

References available upon request