

## Education

**Ottawa ON**

**Carleton University**

**Sept 2010 – April 2016**

- Bachelor of Engineering, Computer Systems Engineering

## **Courses**

- Object Oriented Software Development. Grade: A
- Algorithms and Data Structures. Grade A+
- Computer Communications. Grade A-
- Discrete Simulation/Modeling. Grade: A
- Distributed Computer Systems Development. Grade A-
- Introduction to Software Engineering. Grade A-

## Languages and Technologies

**Languages & Markups:** Java, C/C++, Python, JavaScript, SQL, HTML5, CSS, PHP, XML, Groovy, Shell

**Tools & Platforms:** UNIX, Qt, Android, Git, Eclipse, Agile, JSON, jQuery, Node.js

**Networking:** TCP/IP, FTP

**Build Systems:** Jenkins, Maven, Gradle, VMware

## Employment

**Software Developer Intern**

**BlackBerry**

**Sept 2013 – August 2014**

- Developed tools for automation and continuous integration for BlackBerry Enterprise using C++ and Java.
- Automated a work procedure with a file transfer protocol that deals with application signing. Extensively tested and debugged.
- Wrote multiple scripts in groovy and shell that data mine and record information across multiple virtual and physical machines.
- Developed various components of a web based application using JavaScript (Angular, Leaflet, Node.js) and SQL. The application received, stored and furthered the automation of client build requests.
- Learned and embraced an agile methodology which maximized team efficiency.
- Managed dependencies and versioning of large scale system architectures for the enterprise build systems.
- Coordinated and tested a major software update of all systems and set up temporary and backup procedures.

**Recruiter Intern**

**Soar Consultants**

**May 2012 – August 2012**

- Candidate searching, data mining and interviewing.

**Librarian**

**Carleton University**

**January 2012 – April 2012**

- Part time work during the academic year

## Technical Experience

### **Personal Projects**

- **Research Position with a professor at Carleton:** Streaming Video over wireless sensor networks. Worked on improving the efficiency of the network and reducing power consumption.
- **Real time multi-threaded polling system:** using network protocols TCP and UDP. Email, twitter and facebook integrations were added to the project. Android application created to broaden the access to the poll.
- **Attended:** An Android Application used to Schedule events.
- **Large-scale artificial life scenarios: Ant Hill, Traffic Light.** Simulated with C++ Programming, focusing on structure and utilizing an effective GUI.
- **Word cloud:** Filters out important words in a document and outputs in HTML the most reoccurring words with the frequency represented by text size.

### **Team Projects**

- **Internet of Things (IoT) Framework:** Connects multiple microcontrollers together in an internet-based architecture. The project uses web services and cloud computing (AWS, Google App Engine) to store customized user settings. Emphasis is given on variability management between alternate technologies (Raspberry Pi, Arduino, Spark).
- **Course Project:** HTML, CSS, JavaScript, PHP and MySQL to create a web application for student registration at a university.
- **Control System for an automated house:** on an embedded platform using an HC12 microcontroller.
- **Bombberman with Wireless Controllers:** Created the game to run on a Raspberry Pi Microcontroller. 2 More Raspberry Pi's used to create wireless controllers.
- **Streaming video server and client (RTSP, RTP)**

### **Additional Experience and Awards**

- **Hackathon/Conferences:** DeCode Hackathon, CUSEC (3x), Blackberry Hackathon, NetNight
- **HackerRank:** Solved over 120+ tough programming questions: [www.hackerrank.com/mohsinobaid](http://www.hackerrank.com/mohsinobaid)
- **Carleton Robot Club**
- **Carleton UAV Research Group**