Alex McCallum

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Work Experience

Ultra Electronics
Halifax, NS
Software Engineer Intern — Sep 2017 - Dec 2017

- Updated legacy code base, tests and configured the project to run in Docker and on Jenkins.
- Worked on various services of a highly configurable large scale C++ and Java microservice project managed by Supervisord with a JavaFX / Eclipse RCP UI.
- Created and optimized unit tests written in the C++ framework Gtest and acceptance tests written in the Python framework Robot.

Gracenote
Halifax, NS
Full Stack Web Developer Intern — Jan 2017 - Apr 2017

- Developed a new Node.js api working extensively with MongoDB to form complex aggregate queries.
- Created a data management tool in AngularJS for non-technical co-workers to manage clients website data across development environments.
- Developed a codebase with hundreds of sports widgets in AngularJS, SASS and Node.js using Webstorm.
- Created a custom AngularJS directive for implementing a performant scrolling table solution and tested for cross browser compatibility using BrowserStack.

CWD Law Inc.
Halifax, NS
Full Stack Web Developer Intern — May 2016 - Aug 2016

- Worked in a start up enviroment where I was responsibile for all aspects of the web app, such as the audio editing software in Javascript, the site's design in CSS and the server in Django with a MySQL Database.

Additional Software Experience

Mozilla
Remote. Jan 2018 - Apr 2018

- Worked remotely with students from across Canada under the leadership of data scientists from Mozilla on an open source project to clean web api call data, quantify data leakage and mine for tracking techniques.
- Developed Jupyter notebook for extracting data from storage/cookie related api calls using Pandas.
- Mined S3 record store of JavaScript web api calls using Spark on a Databricks Python notebook for cookie tracking techniques, such as Evercookies.

Plant Power
Halifax, NS. May 2017 - Aug 2017

- Created an Android application with a Firebase backend for users to monitor a greenhouse as part of a course at Dalhousie. As dev-ops I setup Android Studio, Github, Travis and the Hexiwear monitoring device. As a developer I created a messaging system and setup the server to interface with the Hexiwear device.

Shark Identification Network
Halifax, NS. Sep 2016 - Dec 2016

- As a developer I created the translation and Google Maps features for a shark sighting mobile app using Ionic as part of a community outreach course for the Shark Identification Network to increase shark sightings for tracking and research purposes.

Education

Dalhousie University
Halifax, NS
Bachelor of Science, computer science major — Sept 2012 - May 2018

- Dean's list during the 2014/2015 and 2015/2016 fall and winter semesters.
- Specialized skills developed: network security, cloud computing, web centric computing and data mining.

Hackathon Experience

Dal IBM Hackathon	Full-stack Node.js app to help immigrants settle in NS	Halifax, NS. Mar 4-6 2016
Dal CS W16 Game Jam	Roman pottery themed infinite runner in Unity	Halifax, NS. Mar 18-20 2016
Dal CS Game Jam	2D platform shooter from scratch in Python	Halifax, NS. Oct 15-16 2016

References available upon request