Alex McCallum

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Skills

Java	JavaFX, Android, Gradle, Eclipse	Cloud computing	S3, Elastic Beanstalk, DynamoDB
Data mining	Python, R, Spark, Pandas	Software tools	Git, Jetbrains IDE, Jenkins, Docker
Front-end	AngularJS, Ionic, jQuery, VueJS	Operating systems	Linux, Windows
Web design	Css, Sass, Less, Bootstrap	Database	MongoDB, SQL
Back-end	Node.js, Django		

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.
- Debugged and maintained 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 startup environment where I was responsible 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.
- Effectively communicated technical aspects of my work at the company to non-technical boss.

Self-employed
Halifax, NS
Calculus Tutor
Jan 2015 - Nov 2015

- Assessed the aspects of mathematics the students struggled with and developed methods for the student to overcome their weaknesses.

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.
- Created a Jupyter notebook for extracting and cleaning 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 for my team. 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   Sep 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, machine learning 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

Hobby Projects

Portfolio & Blog Website in Vue

Github Website   Mar 2017 - current

- Created a web platform in Vue and Less for sharing more about myself and projects I have worked on. The project is statically hosted on Github with a domain name from Namecheap.

Minesweeper WebAssembly App in C++

Github Website   Apr 2017 - Sep 2017

- Developed a web app to play minesweeper with the game logic written C++ with a compile target to WebAssembly and used Javascript for managing the UI.

References available upon request