Alex McCallum

902 476 4576 • Halifax NS Canada • www.AlexMcCallum.me • Alex.McCallum@dal.ca

Education

Dalhousie University, Halifax, NS Bachelor of Science, Computer Science major. September 2012 - May 2018

Skills

Java Development JavaFX, Android, Gradle, jUnit Data Science Python, R, Spark, Pandas

Cloud Computing S3, Elastic Beanstalk, DynamoDB Client-side programming Javascript, AngularJS, Ionic, jQuery

Server-side programming Node.js, Django Database MongoDB, SQL

Software tools Git, Jetbrains IDE, Jira, Jenkins, Docker

Operating systems Linux, Windows

Web design Css, Sass, Less, Bootstrap

Communication Public speaking, professional documents

Work Experience

Ultra Electronics Software Engineer September 2017 - December 2017

- Restored and 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.
- Developed components for an Eclipse RCP / JavaFX application that interfaced with the microservice project via ZeroMQ channels.
- Created and optimized unit tests written in Gtest and acceptance tests written in the Robot framework.

Gracenote

Full Stack Web Developer

January 2017 - April 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 in an agile work environment using Jira for tracking tasks and velocity.
- Debugged and developed a codebase with hundreds of sports widgets in AngularJS and Node.js using Webstorm.
- Developed a custom AngularJS directive for implementing an efficient scrolling table solution and tested for cross browser compatibility using browser stack.

CWD Law Incorporated Full Stack Web Developer May 2016 - August 2016

• Completed the co-op work term objective of developing a prototype web application for the company to present to users.

- Worked on all aspects of the web application's development, such as the site's design, test coverage and business logic.
- Developed server application in Django and client in Bootstrap and jQuery.
- Effectively communicated technical aspect of my work at the company to non-technical boss.

Calculus Tutor

January 2015 - November 2015

- Taught calculus to a high school student who achieved a final grade of A.
- Assessed the aspects of mathematics the student struggled with and developed methods to overcome the student's weaknesses.

Additional Software Experience

Mozilla Ucosp Research Student January 2018 - April 2018

- Setup Databricks Python notebook for group to perform queries on a S3 record store of Javascript web API call data.
- Developed Jupyter notebook for extracting and formating data from storage/cookie related API calls using Pandas.
- Mined database of JavaScript web API calls for cookie tracking techniques, such as Evercookies.

Dalhousie IBM Bluemix NS Open Data Hackathon

5th - 6th March 2016

- Placed 2nd out of the 1st and 2nd year student category for creating a web application that helps users find a city to live in Nova Scotia by matching the users preferences with Nova Scotia open data records.
- Responsible for developing the front-end using Bootstrap and back-end using JavaScript in Node RED on the IBM Bluemix framework.

To view more software I have worked on visit my Github: https://github.com/Alexander1994

Academic Achievements

Achieved the Dean's list during the 2014/2015 and 2015/2016 fall and winter semester with an average GPA over the semesters of 3.90.

Analyzed and wrote a report as part of a group project on the MapReduce process in the Hadoop framework with a focus on the data structures and algorithms involved.

Developed 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.