

Duncan McIsaac

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Experience

Software Engineer

Capital One Financial Corporation // July 2016 to Present

Leading effort to create domain specific language to interface with core financial application. Work primarily consists of product research, language design, user studies and development with ANTLR.

Guiding user experience of the backend application and contributing to feature development in Scala.

On prior team: implemented mobile application API features with Java Spring and advanced API monitoring with Elastic stack.

Software Developer Intern

Spiceworks // May 2015 to August 2015

Developed shopping cart feature for Spiceworks product catalog with Ruby on Rails and Ember.js. Crafted user experience, led user studies and designed software architecture for feature.

Information Security Intern

The Boeing Company // May 2014 to August 2014

Developed extensible data migration web service in Java to connect task management systems of multiple teams. Prototyped responsive redesign for internal Information Security web presence.

Projects

Honors Thesis

Web Accessibility Research // August 2015 to May 2016

Developed novel interaction techniques for web navigation involving finger tracking and spatially-consistent mapping of web content to keyboard. Built Node.js application that served UI and cleaned and recorded user interaction data in MongoDB database. Ran study involving five visually impaired users. Received \$1000 in grants.

UI Engineering for Google Lunar XPRIZE Team

Advanced Mobile Robot Development // January 2015 to May 2015

Developed touch-based lunar rover control application using Node.js and socket.io for demonstration at World Economic Forum in Davos, Switzerland. Contributed to design and development of rover mission control dashboards.

Education

Carnegie Mellon University

Class of 2016

B.S. Information Systems

Minor in Human-Computer Interaction

College and University Honors

GPA: 3.71 / 4.00

Languages

Scala

Java

Python

JavaScript

HTML / CSS

Swift

Frameworks

Spring

Node.js

Rails

Skills

User Experience Design

User Testing

CI / CD

Data Visualization

SQL / NoSQL Databases

Web Accessibility

Sketch

Certifications

AWS Certified Developer - Associate