Essa Saeed

Honours Software Engineering

University of Waterloo · Class of 2020

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Skills

- Programming: JavaScript, C++, Python, Swift, Java, C, SQL, PHP, Objective-C, Assembly
- Web Development: Node.js, Express.js, TypeScript, Flask, HTML, CSS, jQuery, Bootstrap
- Tools: AWS, Docker, Tensorflow, Caffe, OpenCV, Cordova/PhoneGap, Fiddler, Git, JIRA
- Interests: Distributed Systems, Concurrency, IoT, Real-time Services, Machine Learning

Experience

Index Exchange Inc.   *Software Engineering Intern*   May. 2018 - Aug. 2018

- Democratizing digital advertising in real-time

Mappedin Inc.   *Software Developer Intern*   Sep. 2017 - Dec. 2017

Node.js, Python, Swift, Docker, Tensorflow, OpenCV, TypeScript, Webpack, AWS S3, Git

- Built prototype **real-time face recognition application** from scratch to run in dockerized container leveraging WebSockets, computer vision and convolutional neural networks
- Built prototype **real-time position tracking and geofencing service** to notify users over WebSockets, a data pipeline from RFID, routing and a user API library all from scratch
- Developed **binary deserialization tool** for parsing map data using prototypal inheritance

SAP Canada Inc.   *Mobile Developer Intern*   Jan. 2017 - Apr. 2017

JavaScript, Node.js, Objective-C, Cordova/PhoneGap, Maven, SAPUI5, SAP HANA, Gerrit

- Developed mobile plugin to import certificates **reducing authentication time by ~2.67s**
- **Maintained** mobile SDK and **shipped** fixes for OAuth 2, the InAppBrowser and AuthProxy
- Presented a **reverse proxy cache** solution to simplify bug reproduction for debugging

Selected Projects

- Web App: Added features to embracingquran.com admin portal using **PHP** and **MySQL**
- Website: Made cafeonroute.ca for restaurant using **Google APIs**, **AWS EC2** and **Route53**
- iOS App: Created and published "Quran Daily Selections" app with **over 100 downloads**
- Android App: **Singleton** model quiz application using the **MVC** pattern and **XML** layouts
- Web App: Parsing **JSON** from APIs to make recommendations leveraging localStorage
- C++ Game: Frogger-style game with double buffering transpiled for web using Emscripten
- Course Project: **Compiler** for a subset of C that uses abstract syntax trees and grammars

Relevant Courses

- Algorithms, Operating Systems, Data Structures, Compilers, Design Patterns, Testing, Combinatorics and Graph Theory, Formal Logic, Statistics, Discrete Math, Linear Algebra, Digital Circuits, Computer Hardware