Joshua Koza

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Skills

Languages: Python • C • C++ • C# • JavaScript • Java • Bash
Front-end: React • Redux • HTML • CSS • Sass/Less • D3.js • jQuery • Webpack • Grunt • Bootstrap
Back-end: MySQL • MongoDB • Redis • Memcached • Node.js • Express.js • S3 • EC2 • Heroku • GraphQL • ElasticSearch • Docker
Tools: Git • SVN • Jira • Jenkins • SVN • Slack

Experience

Minted
San Francisco, California

Software Engineering Intern — *Summer 2018*

- Redesigned an existing GraphQL implementation to be built on ElasticSearch to support more complicated queries and increase speed as much as 20%.
- Participated in the full-time on-call schedule, fixing live issues on production as they happened.
- Developed a new API endpoint reducing the speed to fetch product data by 30%.

Globe and Mail
Toronto, Ontario

Front End Developer Intern — *Fall 2017*

- Developed a social media web scraper in Python and stored results in a MongoDB database.
- Led the design of a Spring Boot Java API that returns social media data fetched by the scraper.
- Designed an admin dashboard to manage users and their permissions using React/Redux, MongoDB and a Spring Boot Java API.

IBM
Ottawa, Ontario

Software Developer Intern | Watson Analytics — *Winter 2017*

- Developed a Node.js API that uses the internal Watson Machine Learning API to fetch insights about data-sets provided.
- Implemented a new system for loading icons using icon fonts to reduce the number of HTTP requests, resulting in the reduction of initial load times by as much as 30%.
- Re-factored legacy JavaScript modules to meet the ES6 standard.

Ignis Innovation
Waterloo, Ontario

Software Engineering Intern — *Summer 2016*

- Developed an application in C++ and OpenGL that scans the pixels of a display and graphs relations and trends in pixel data to be used by the electrical engineering team.
- Optimized several legacy OpenGL modules and re-factored GLSL shaders to modern OpenGL specifications.
- Led development of a set of C++ drivers to automate the electrical engineering lab's power supplies, in addition to an auxiliary C# .Net application that allows users to sequence commands and leave equipment unattended.

Projects

Helix

Genome Analyzing Tool

- Developed a tool to analyze a users genome to provide health and trait reports from 23andMe or AncestryDNA files.
- Wrote a Python web scraper to scrape information from snpedia.com and store it in a MongoDB database.
- Built a Node.js API that would compare the users genome to the scraper data and return insights about the user.

Jane Street Trading Bot

Financial securities trading bot

- Wrote a bot in Python to buy and sell securities on a simulated market for the Jane Street Electronic Trading Competition.
- Implemented the logic necessary to handle TCP connections with the market and developed a model to calculate fair values of the different securities traded.

Neck Doctor

Machine learning neck condition diagnostic tool

- Designed an application that monitors a user's posture while at the computer to make sure it is proper to prevent future joint complications using machine learning.
- Developed a Windows application in C# .Net, that used the Microsoft Kinect SDK to obtain joint locations and compare them to an ideal model using the Wolfram API.

Education

University of Waterloo
Waterloo, Ontario

B.A.Sc in Computer Engineering — *2015 - 2020 (expected)*