Joshua**Koza**

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Skills

Languages: C++, C, C#, JavaScript, HTML/CSS
Technology: React, Node.js, Express, Sass, OpenGL, jQuery, Webpack, Grunt, Docker, MongoDB, Bootstrap, Jenkins, Git, SVN, Linux

Experience

IBM
Ottawa, Ontario

SOFTWARE DEVELOPER | WATSON ANALYTICS   *Jan 2017 - Apr 2017*

- Developed a new system for loading icons using icon fonts greatly reducing **HTTP requests** and average load times by excess of 30%.
- Designed an API to recommend different ways to visualize data based on data provided by the user using Watson **Machine Learning**.
- Worked with a team to refactor legacy code to an **ES6 standard** to be used in the convergence of two software projects.

Ignis Innovation
Waterloo, Ontario

SOFTWARE ENGINEERING   *Apr 2016 - Sept 2016*

- Developed an **OpenGL** graphing tool that allows users to visualize and dynamically manipulate display pixel data.
- Reworked several legacy OpenGL modules and GLSL shaders to **modern OpenGL specifications.**
- Led development of a set of **C++ drivers** to automate lab equipment, coupled with an application that sequences commands on the equipment, greatly improving lab work flow.
- Collaborated with a team to develop an application to manage software builds and NuGet packages. Additionally, improved the existing build deployment and regression testing infrastructure by using **Jenkins**.

Projects

Igloo

USED: JAVASCRIPT, HTML/CSS, REACT, NODE.JS(EXPRESS), MONGODB, WEBPACK, GIT

- A portal for students to connect with landlords, easing the processing of renting.
- The application featured a **React** front end coupled with a **MongoDB and Node.js(Express)** backend.

Tree Chat

USED: JAVASCRIPT, HTML/CSS, NODE.JS(EXPRESS), SOCKET.IO

- A chat client that allows users to branch their conversations based on topic.
- The application featured a **Node.js (Express)** backend with sockets being managed by **Socket.io**.

Neck Doctor

USED: C# .NET, JAVASCRIPT, HTML/CSS, REACT, NODE.JS(EXPRESS), MATHEMATICA, GIT, MICROSOFT KINECT

- Monitors a user's posture while at the computer to prevent future joint complications using **machine learning**.
- Developed a Windows application that uses the Kinect SDK to gain joint data. The data is then displayed to the user on the NeckDoctor web application. The tech stack included **React, Node.js(Express) and MongoDB**, and utilized the Wolfram API for **machine learning** purposes.

Extracurricular Activities

Hackathons
Various

PARTICIPANT   *Sept 2015 - Present*

- Hack Princeton (**Princeton**), TreeHacks (**Stanford**), HackTech (**Caltech**), HackMIT (**MIT**), MLH Prime (**Bell Labs**),Hack The North (**University of Waterloo**), Deloitte Tech Exchange (**University of Waterloo**), ConUHacks (**Concordia University**).

UW Robotics Team
Waterloo, Ontario

COMPUTER VISION TEAM   *Sept 2015 - Sept 2016*

- Worked in a team to develop an algorithm to detect changes in traffic lights and obstacles using **OpenCL and C++**.

Waterloo Hybrid
Waterloo, Ontario

SOFTWARE TEAM   *Sept 2015 - Sept 2016*

- Attended workshops to learn **Arduino C** programming.

Education

University of Waterloo
Waterloo, Ontario

B.A.SC IN COMPUTER ENGINEERING   *2015 - 2020(expected)*