William Lo

Software Engineering | University of Waterloo

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Highlights

- **Languages:** C, C++, Python, LabVIEW, Arduino, JavaScript, HTML/CSS, jQuery, Node.js, Angular.js
- **Frameworks:** Express, Meteor.js, Kivy, Bootstrap, Foundation
- **Tools:** Git, Vim, Bash, Adobe Photoshop, Adobe InDesign, LaTeX

Experience

Software Engineering Intern | Quanser — June 2014-August 2014

- Developed and tested software for Arduino, Raspberry Pi, and myRIO systems
- Developed software with LabVIEW that manipulated an inverse pendulum with a Microsoft Kinect, which was featured in a keynote presentation at NI Week 2014
- Performed quality assurance using regression and functional testing on sensors and robotic systems

FIRST Robotics Competition Team 4001 | Team Captain — Sept 2011-June 2015

- Led a team in the software and design of a robot to perform tasks such as lifting and stacking objects
- Programmed the robot with LabVIEW for autonomous and driver controlled movement
- Increased the efficiency of the robot by 50% with PID controllers and autonomous state machines

Projects

WatProduct — January 2016-Present

- Implemented a web application that allows users to easily gauge a quality of a technological product using Node.js, Express, and Jade
- Utilizes IBM's Watson APIs to analyze the positive sentiment of news articles and reviews of a product

Tetromino Simulator — December 2015

- Co-designed a Tetris game using Processing Visualization with the TI Launchpad as a game controller
- Mapped buttons and sensors from the microcontroller to interact with Processing

Twitter Map — November 2015

- Designed a web application that searches for certain tweets and displays their geographical locations
- Created using JavaScript, Google Maps API, Twitter API, and Meteor.js

Music by Mood — August 2015

- Implemented a Python application that sorts the user's music by their moods into playlists
- Songs were filtered into moods by retrieving their musical information using the Echo Nest API

Food Finder — June 2015

- Implemented a mobile app that finds recipes based on available ingredients using the Edamam API
- Built with Kivy, a Python open source library for cross platform applications

Relevant Courses

CS 137: C, Arrays, Recursions, String Manipulation, Dynamic Memory, Algorithms
CS 138: C++, Abstract Data Types, OOP, Software Engineering and Design