# William Lo

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Software Engineering | University of Waterloo

## Technical Skills

- **Languages:** C++, JavaScript, C, Ruby, Python, LabVIEW, Java, HTML/CSS
- **Frameworks:** React.js, React Native, Node.js, Rails, jQuery, Arduino
- **Tools**: Git, Vim, Bash, Adobe Photoshop, Adobe InDesign, LaTeX

## Experience

### Web App Developer | Innovasium Digital                 May 2016 - Aug 2016

- Led the development of an online web application builder, using React.js and Rails
- Refactored the infrastructure of the web app to work with multiple Rails API calls
- Optimized major functions, primarily the drag and drop functionality, to run in constant time
- Implemented file management systems, graphs, data tables, forms, and a rich text editor for demonstrations with potential clients

### Software Engineering Intern | Quanser                 Jun 2014 - Aug 2014

- Developed and tested features for Arduino, Raspberry Pi, and myRIO systems
- Developed software with LabVIEW that controlled 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 Captain | Team 4001        Sep 2011 - Jun 2015

- Led software and design teams for a robot that performs tasks such as lifting and stacking objects
- Programmed the robot for autonomous and driver controlled movement, which won multiple awards
- Increased the efficiency of the robot by 50% with PID controllers and autonomous state machines

## Projects

### GoGoGo                 Aug 2016 - Present

- Collaborating with a team to design an online multiplayer Go board game
- Implemented the game rendering on the web client and API calls to the server in React.js

### Code/r | Microsoft Hacks                 Jun 2016

- Developed a web application that takes written Python code and executes it on the web browser
- Utilized Microsoft Azure's machine learning API and image recognition with Node.js

### Cat Facts Bot                 May 2016

- Developed a Facebook Messenger Bot that responds with cat facts and puns
- Uses Wit.ai for Natural Language Processing and an API for generating random cat facts

### WatProduct | IBM Developer Challenge                 Jan 2016 – Feb 2016

- Implemented a web application that allows users to receive the quality of a technological product using Node.js and Express
- Utilized IBM's Watson APIs to analyze the sentiment of news articles and reviews of a product

### Food Finder                 Jun 2015

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