

# Lichen Ma

An ambitious & passionate problem-solver who codes.

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## Skills

- **Programming** / C++, Java, JavaScript, Python, C, Matlab, Git
- **Product Management** / Strategy, project reports, UI/UX design, Agile/Scrum
- **Data Science** / Analysis using NumPy, Pandas, statistical methods
- **Web Development** / Spring, Angular, React, Node.js, JS (ES6), SQL, HTML5, CSS3
- **Mobile Development** / Android using Android Studio

## Experience

Winter 2019 **Full-Stack Developer**, *HubHead*, NRX AssetHub.

- Wrote custom scripts in groovy to retrieve and display client requested data as a part of the company's master data governance solution
- Built workflow emails to manage requests and approvals including front-end (HTML) and back-end (Spring) to pull important information from a PostgreSQL Database
- Co-ordinated with a small startup team to meet client requests and deadlines

Summer 2018 **Wireless LAN Engineer**, *Extreme Networks*, Extreme Cloud Appliance.

- Wrote up a detailed report analyzing API testing frameworks and presenting which framework would be the most suitable for the Extreme Cloud Appliance project
- Built a testing approach using Newman and JavaScript to verify functionality for all user endpoints
- Identified a major user profile bug before the product was launched to users

Winter 2017 **Process Control Systems Engineer**, *Toronto Water*, Process Control Systems.

- Fall 2017
- Built a database of company assets and used NumPy and Pandas to perform Python data cleaning
  - Architected a network design including IP addressing and security architecture to provide network access to Power Distribution Units located in the company's datacenter
  - Collaborated with the desktop team to rollout a Citrix TWave System and presented the project to Project Managers in plants located all around Toronto
  - Generated wireless survey data using Ekahau Technologies to accurately provide VoIP services

## Projects

- **Wordly Goods**
  - Records and analyzes user earnings and spendings and provides feedback regarding consumer spending
  - Utilized Webpack and Axios to connect the React front-end and NodeJS server
- **Algorithms and Data Structures**
  - Developed parsers, double sentinel linked lists, resizable deques, AVL trees, and quadratic hash tables using Dev-C++
  - Compiled and tested these programs using the department of Computer Engineering's Linux server
- **Gesture Controlled 2048**
  - 2048 game which responds to the vertical and horizontal movements of the user's device
  - Developed in Android Studio with Java using the accelerometer to determine the input gesture

## Education

Present **Candidate for BAsC in Computer Engineering**, *University of Waterloo*.

- Related Coursework: Algorithms and Data Structures, Engineering Design with Embedded Systems, Operating Systems and Systems Programming, Electronic Circuits