Lichen Ma

✉ l67ma@edu.uwaterloo.ca   •   in linkedin.com/in/lichen-ma   •   ⌗ github.com/lichenma

Education

University of Waterloo   *Sept 2016 - May 2021*
Candidate for Bachelor of Applied Science in Computer Engineering

○ Top 25% of Computer Engineering Juniors

Experience

Back End Engineer *Intersect*   *Sept - Dec 2019*
Ruby, Rails, RSpec, Java, Spring, Git, JIRA   *Toronto, ON*

○ Refactored application service layer implementing template metaprogramming and singleton design methods reducing **memory consumption** and **response time by 30%**
○ Optimized room booking workflow data structure and handled integrations with third-party **Nexudus** service

Full-Stack Developer *HubHead*   *Jan - Apr 2019*
Java, Spring, AngularJS, PostgreSQL, Groovy, Git, MVEL   *Markham, ON*

○ Developed a duplicate workflow detection service, eliminating **back-end errors** resulting from user input overlap
○ Added client and server side **data validations** for an Asset Management web service, ensuring compliance with SAP data standards

Wireless LAN Engineer *Extreme Networks*   *Apr - Aug 2018*
JavaScript, Postman, Newman, Bash, SwaggerIO   *Markham, ON*

○ Automated REST API regression testing using Postman workflows, shortening the validation process by **60%**
○ Designed integration tests for all user profile API endpoints, adopted into the project **CI/CD** pipeline

Software Engineer *Toronto Water*   *Sept - Dec 2017*
Python, NumPy, pandas, Microsoft SQL Server   *Toronto, ON*

○ Automated analytics generation using **Python** for data preprocessing and analysis, shortening the process by **80%**
○ Developed a database of company assets using **Microsoft SQL Server**, streamlining the data retrieval process

DevOps Engineer *Toronto Water*   *Jan - Apr 2017*
TCP/IP, Routing/Switching, Cisco CLI   *Toronto, ON*

○ Architected a network design including **IP addressing** and **security architecture** to provide network access to Power Distribution Units located in the company's datacenter

Projects

Javalon - Spring Web Service Board Game
Java, Spring, AngularJS, H2, Websockets

○ Developed a **real-time** web service interpretation of the card-based board game "The Resistance: Avalon"
○ Designed features including user authentication, game rooms, and real-time synchronization driven by **Websockets**

Interests

YMCA Youth Basketball Coach   *Oct 2013 - June 2016*

Skills

Technologies   Rails, Spring, NodeJS, Express, AngularJS, React, Git
Languages   Java, JavaScript, Ruby, C, C++, Python, SQL