

Lichen Ma

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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 **Nexodus** 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