

Lichen Ma

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Education

Candidate for Bachelor of Applied Science in Computer Engineering
University of Waterloo

Sept 2016 - May 2021

Experience

Back End Engineer *Intersect*

Ruby, Rails, RSpec, Java, Spring, Git, JIRA

Sept - Dec 2019

Toronto, ON

- Optimized room booking workflow data structure to display crucial client data and populate internal **Nexodus** application for user account administration, adopted throughout the organization

Full-Stack Developer *HubHead*

Java, Spring, AngularJS, PostgreSQL, Groovy, Git, MVEL

Jan - Apr 2019

Markham, ON

- Developed the full-stack implementation for a duplicate workflow detection service on a cloud based multi-user application, **eliminating back-end errors** resulting from user input overlap
- Added client-side and server-side data validations for an Asset Management web service using **MVEL** and **SQL**, ensuring compliance with SAP masterdata standards
- Designed a SQL optimization job using Obsidian Job Scheduler, periodically removing unused database entries and **reducing process list load times by 20%**

Wireless LAN Engineer *Extreme Networks*

JavaScript, Postman, Newman, Bash, SwaggerIO

Apr - Aug 2018

Markham, ON

- Automated REST API regression testing by creating Postman workflows to generate requests and JavaScript Assertions to perform validations, **shortening the verification process by 60%**
- Managed the verification process for all user profile API endpoints, **eliminating back-end vulnerabilities** resulting from improper server-side validations

Software Engineer *Toronto Water*

Python, NumPy, pandas, Microsoft SQL Server

Sept - Dec 2017

Toronto, ON

- Automated the generation of Asset data analytics using **Python** for data preprocessing and analysis, **shortening the asset report generation process by 80%**
- Developed and maintained a database of company assets using **Microsoft SQL Server**, streamlining the data retrieval process and saving the server team 10 hours / week

Projects

10Minutes - Android Kotlin Application

Kotlin, Android Studio, Java

- Developed a countdown timer application designed to control user phone usage inspired by the 10 minute-delay rule in **The Willpower Instinct**
- Designed the application implementation featuring **preference utility** streak counters, background functionality driven by **intents** and **broadcast receivers**, and push notification support using **Notification Utilities**

Interests

YMCA Youth Basketball Coach

Oct 2013 - June 2016

Skills

Technologies / Spring, NodeJS, Express, AngularJS, React, Android Studio, Git

Languages / Java, JavaScript (ES6), C, C++, Python, SQL, Kotlin, HTML5, CSS3