Lichen Ma

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Skills

- Web Development / Spring, AngularJS, NodeJS, JS (ES6), React, SQL, HTML5, CSS3
- **Programming** / Java, JavaScript, C++, Python, C, Matlab, Git
- Data Science / Analysis using NumPy, Pandas, Statistical methods
- Mobile Development / Android Game Development using Android Studio
- Product Management / Strategic Planning, SDLC, UI/UX design, Agile/Scrum

Experience

Jan - Apr Full-Stack Developer, <u>HubHead</u>.

2019

- Developed the fullstack implementation of a duplicate workflow detection service for a cloud based multi-user application using Spring, AngularJS, and PostgreSQL
- Added client-side and server-side data validations for an Asset Management web service using MVEL and SQL, complying with enterprise-level data standards
- Optimized user accounts workflow data structure to display crucial client data and populate internal Bonita BPM application for user account administration, adopted throughout the organization
- Designed a SQL optimization job using Obsidian Job Scheduler, periodically removing unused database entries and reducing process list load times by 20%

Jan - Apr DevOps Engineer, Toronto Water.

Sept - Dec 2017

- Automated the generation of Asset data analytics using Python for data preprocessing and analysis, shortened asset report generation process by 80%
- 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 native application team to present a desktop virtualization system, successfully transitioning all Toronto-wide plants to the new system technology

Apr - Aug Wireless LAN Engineer, Extreme Networks.

2018

- Automated REST API regression testing by creating Postman workflows to generate requests and JavaScript Assertions to perform validations, shortened verification process by 60%
- Managed the verification process for all user profile API endpoints using **Testlink**, meeting Corporate-level API standards

Projects

Javalon - Spring Web Service Board Game

- \circ Developed a real-time web service interpretation of the card-based board game "The Resistance: Avalon"
- Designed the fullstack application implementation featuring user authentication, game-rooms, and real-time game synchronization across devices using WebSockets, Spring, AngularJS, and H2

• Worldly Goods - NodeJS Web Service

- o Developed a web application for recording and analyzing user monetary transactions to determine net worth
- Built the front-end infrastructure using React and integrated connections to the MongoDB database and NodeJS back-end using Express, and Axios

• Prophit- Python Machine Learning

- o Developed a **Python** script to perform time series forecasting for predicting future stock prices
- o Incorporated Machine Learning techniques including Moving Average, Linear Regression, ARIMA, and LSTM

Education

2016-2021 Candidate for B.A.Sc in Computer Engineering, University of Waterloo, 3A Term.