Fei Lin

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Education

University of Waterloo   *2020 - 2025*
Bachelors of Software Engineering   *90.1% CGPA*
Courses: Algorithms, Data Structures, Databases, Operating Systems, Concurrency, Networks, User Interfaces

Skills

Languages   Python, C++, JavaScript, Go, SQL, Scala, Java, Kotlin, PHP
Technologies   Docker, React, Flask, Spark, Airflow, Redis, Grafana, MongoDB, Express, Node.js

Experience

Software Engineering Intern (Incoming)   *Toronto, Ontario*
Intact Financial Corporation   *Jan 2024 - Apr 2024*
- Design and development of backend solutions for Intact's artificial intelligence teams

Software Engineering Intern   *Toronto, Ontario*
Swan Cloud Inc. (FilSwan)   *May 2023 - Aug 2023*
- Implemented **Flask** server APIs for the creation, assignment, and monitoring of computing tasks distributed to groups of computing providers
- Optimized download speeds for large batches of files in **Python** by downloading files in parallel, reducing download time by over **3x**
- Used **Python** and **Redis** to add filters for a task matching engine to efficiently allocate computing tasks to providers that best fit task requirements
- Integrated blockchain payments to allow for transparent and tamper proof user payments and computing provider payouts

Software Engineering Intern   *Toronto, Ontario*
Index Exchange   *Sep 2022 - Dec 2022*
- Developed data pipelines with **Spark** and **Scala** to process the financial data of a programmatic advertising platform
- Tracked and sampled advertisements in **Go** to collect viewability data from **millions** of outgoing requests
- Utilized **Go** and **Gin** to create and maintain server endpoints used to seamlessly retrieve and present payment information to frontend pages
- Updated filtering logic of ETL jobs with **Scala**, **Spark**, and **SQL** to increase data pipeline throughput by **25,000** new database records every day

Data Scientist   *Toronto, Ontario*
Wish   *Jan 2022 - Apr 2022*
- Wrote an automated reporting job for package delivery metrics using **Python**, **SQL**, and **Airflow**, replacing the manual workflows for dozens of business teams
- Introduced machine learning models that estimated product profits and similarity based on key product traits using allowing for greater analysis into user spending patterns
- Created **Airflow** data pipelines using **Spark**, **Presto**, and **Hive** to efficiently build and populate database tables with **millions** of records

Software Developer   *Calgary, Alberta*
Exempt Edge   *May 2021 - Aug 2021*
- Introduced new investor referral system built with **PHP** and **Laravel** to replace and expand upon the previous method used by over **90,000** transactions
- Refactored and optimized **SQL** queries in combination with utilizing hash tables to reduce end user latency by **2.5x**

Projects

Yum
3rd Place winner of the Cisco Webex Virtual Hackathon
- Full stack web application built with MongoDB, Express, React, and Node.js that helped users make food donations
- Developed server APIs in Node.js to handle essential CRUD operations
- Created frontend components for the listings page in React to display and allow users to interact with posts