

# Feiyang Lin

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## Education

### University of Waterloo

**Bachelors of Software Engineering, 3.9 / 4.0 GPA**

Waterloo, Ontario

2020 - Present

## Skills

### Languages

C++, Python, Go, SQL, Scala, Java, JavaScript, Kotlin, PHP

### Technologies

Docker, Kubernetes, Spark, Airflow, Grafana, MongoDB, React, Node

## Work Experience

### Software Engineering Intern

Toronto, Ontario

#### FilSwan

May 2022 - Present

- Backend development of a decentralized cloud computing platform used for the storage, sharing, and deployment of code and software applications
- Designed and deployed Flask server APIs for the creation, assignment, and monitoring of computing tasks distributed to groups of computing providers
- Optimized file download speeds in Python using concurrency to download files in parallel, reducing download times for large numbers of files by over 3x
- Integrated region and hardware filters for a task matching engine to efficiently allocate computing tasks to providers that best fit task requirements
- Integrated a web3 payments system, leveraging blockchain technology, to allow for transparent and tamper proof user payments and service provider payouts

### Software Engineer Co-op

Toronto, Ontario

#### Index Exchange

Sep 2022 - Dec 2022

- Development of microservices and data pipelines to process the financial data a programmatic advertising platform that handles billions of requests
- Added request sampling in Go to collect advertisement data from millions of outgoing auction requests every day
- Enhanced ETL jobs with Scala, Spark, and SQL to increase daily task throughput of 25,000 new database records
- Implemented Jira ticket type validation to CICD pipelines to ensure accurate issue tracking for pull requests

### Data Scientist

Toronto, Ontario

#### Wish

Jan 2022 - Apr 2022

- Completed analysis, data engineering, and machine learning tasks to drive data driven decisions on an e-commerce platform with millions of monthly users and products
- Introduced a machine learning models that estimated product profits and similarity based on key product traits, enabling and optimizing more data-driven decisions
- Designed, implemented, and tested an automated reporting job for package delivery metrics and tracking using Python, SQL, and Airflow, reducing the manual workload for dozens of core business teams
- 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 2022

- Full-stack development of software solutions for the private capital markets of Canada
- Introduced new investor referral system in PHP using 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

#### JavaScript, MongoDB, Express.js, React, Node.js

- 3rd Place winner of the Cisco Webex Virtual Hackathon
- Full stack web application built with MongoDB, Express, React, and Node.js
- Developed REST API's in Node.js to handle essential CRUD operations and facilitate communication between React frontend and Express backend