

WORK EXPERIENCE

Tesla Sept 2022 — Dec 2022
Software Engineer Intern San Francisco Bay Area, California

- Developed a real-time change data capture (CDC) pipeline to replace an outdated batch data export system which often took upwards of 1 hour using **Apache Kafka**, **Pyspark** and **Delta Lake** on **Databricks**.
- Saved engineers 4 hours of weekly manual testing by building an automated deployment test pipeline for an ELT system.
- Decreased development time of data analysts by 40% by building a tool to mock test and integrate ELT schema changes.
- Designed the architecture for an automated cost-saving contract analysis tool that proposes cost optimizations to supply managers based on given business rules.

Wealthsimple May 2022 — Aug 2022
Software Engineer Intern Toronto, Canada

- Architected and implemented a code-as-compliance repository for access management of personally identifiable information (PII) in the data warehouse for Wealthsimple's SOC 2 compliance certification using **Satori** and **Terraform**.
- Built a data-access request system for access to PII in the data warehouse. The system integrates with the Wealthsimple **Jira Service Board** and consults data domain experts via **Slack** for access approval using **Python** and a **Flask** backend.
- Increased development rate and error visibility in the managed machine learning system at Wealthsimple by building log and queue reporting for **Celery** training workers.
- Relevant blog posts: [\[1\]](#) [\[2\]](#)

Bookmark | AI-Powered Website Builder May 2021 — Aug 2021
Machine Learning Engineer Intern Toronto, Canada

- Saved data scientists 20 hours/month of manually training models by Automating the training and integration/unit testing of 10 sequentially trained machine learning models in **Python** using **Apache Airflow**.
- Built a horizontally scalable data pipeline using **AWS Batch**, **SQS**, **S3**, **ECR**, **Apache Airflow**, and **Apache Spark** to reduce data export time by 30% and improve data reliability and error tolerance.
- Improved model engineering to reduce bugs, allow for more reusable code, and increase the rate of model development.

Magellan Aerospace Limited May 2020 — Aug 2020
Summer Web Developer Winnipeg, Canada

- Migrated a collection of web apps written in **PHP** to **ASP.NET (C#)** to improve performance and security and updated the frontend of those web apps using **HTML**, **CSS**, and **Javascript**.

EDUCATION

Honors Bachelor of Science in Computer Science, University of Toronto Sept 2019 — Apr 2023
Computer Science Specialist, 3.75 cGPA Toronto, Canada

- **Awards:** Dean's List of Academic Excellence (2020 - 2022)

SELECTED PROJECTS

Crypto Trader [\[code\]](#) Jan 2022

- Developed a personal cryptocurrency trading program using the [binance-connector](#) python package.
- Researched a number of different potential trading algorithms and tested them using internal evaluation tools.

LocAlley Community Board Sept 2021 — Dec 2021
Backend Engineer

- Developed a small-business centred community forum for a [Toronto startup](#) with peers as part of Software Engineering course.
- MVP built in **Python** using **Fast.API**, **PostgreSQL**, and **Firebase**, and deployed publicly to **Heroku** in a **Docker** container.

SKILLS & INTERESTS

Programming Languages	Python, SQL, Golang, C#, Java, C, R, Racket, Haskell
Cloud Computing	AWS {S3, EC2, Lambda, Batch, ECR, SQS, RDS, CodeBuild, CloudWatch}, Heroku
Tools/Technologies	Git, Apache Airflow, Docker, Celery, Datadog, MySQL, PostgreSQL, Linux/Unix, React, \LaTeX
Interests	Chess, Swimming, Reading, Podcasts, Weightlifting, Gardening

ACTIVITIES

Computer Science Student Union - First Year Mentor	Sept 2020 — Current
UofT Artificial Intelligence Group - General Executive	Sept 2020 — Current