

Hassan Tariq

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EDUCATION

University of Waterloo

Master of Engineering in Electrical and Computer Engineering

Waterloo, ON, Canada

Jan 2024 - Dec 2025

University of Calgary

Bachelor of Science in Software Engineering

Calgary, AB, Canada

Sep 2018 - May 2023

TECHNICAL SKILLS

Languages: Python, C/C++, Java, Groovy, C#, JavaScript, TypeScript, XML (XSLT, XQuery), HTML/CSS, SQL
Technologies: React, Node, Express, OpenGL, Spring, JUnit, MongoDB, Docker, GCP(BigQuery, BQML, VMs), DS/ML(Scikit-learn, Pandas, NumPy, PyCaret, XGBoost, Keras, PyTorch, Spark)

EXPERIENCE

Incoming Software Engineer Intern

Shopify | Toronto, ON

Jan 2025 - Apr 2025

Software Implementation Engineer

Sidetrade | Professional Services

Jul 2023 - Jan 2024

- Active communication with client to implement solutions on Sidetrade's industry leading augmented invoice platform that has processed 593M+ invoices. Solutions include leveraging **Java**, **Groovy**, and **XML** technologies to implement feature enhancements and fixing bugs reported by client.
- Implemented a PDF compression algorithm that allows for the flexibility of PDF uploads.
- Developed an invoice versioning system to allow the upload and processing of multiple invoices.
- Implemented various fixes regarding clients' needs regarding the UI, invoice processing and workflows, database, logging and reports, and connectivity with business partners.

Software Engineer Intern

General Motors | Map Data Tools

Jan 2022 - Aug 2022

- Implemented bugfixes in **React** to enhance the user experience of the map viewing tool.
- Developed additional logging features in **C#** for a map data parsing application.
- Implemented a major bugfix in **C#** that impacted the key production pipeline for the Cadillac Super Cruise map, involving false and missing calculations in the map data. The Cadillac Super Cruise system has mapped over **400k miles** using LiDAR technology and has been used by individuals for over **34 million miles**.

Software Engineer Intern

TELUS | Advanced Analytics and AI Enablement

Jan 2021 - Dec 2021

- Developed various ML classification models using **sci-kit learn** and **PyCaret** for predicting pet ownership on app usage data. **Logistic Regression** and **LightGBM** showcased the best results with **~86%** and **~87% accuracy** respectively. Productionized the model on **GCP**.
- Improved usability of an automated **Python** script that generated a list of **nearly 20,000 target customers** through documentation and code enhancements such as allowing the use of multiple locations when geofencing, and migrating the script to **GCP**.
- Created a **SQL** query to leverage 5G data and create a list of **600K+ customers** across **1800 5G sites** as part of a network improvement churn reduction project.
- Developed an **LSTM deep learning model** for predicting network experience perception with **~93% accuracy**, and presented findings to a group of **over 100 people including executives**.

PROJECTS

Finberry Trading Application | *Engineering Capstone Design Project*

Sep 2022 - Apr 2023

- Developed an end to end web application with a team of 4 engineers that improves the financial literacy of users by offering different learning tools such as financial coaching, literary articles, and a **simulated stock environment**
- **React** and **Typescript** were used for the front-end with **MUI** for styling, **Express** for the backend, **Firebase** for authentication, **Stripe** for managing payments, **MongoDB** as the database and hosting using **Vercel**.