

ALY SHARIFF

Waterloo, ON. / Montreal, QC.

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Technical Skills

Languages: Python, JavaScript, HTML/CSS, Racket, SQL, C++

Technologies/Frameworks: React, React Native, Express, Flask, MongoDB, NodeJS, Tensorflow, Scikit-Learn, Pandas

Awards: \$15,000+ in Science Fair awards (includes **Regeneron International Science and Engineering Fair**

Finalist and more), **5x hackathon winner** (including Hack the North Finalist and PolyAI CodeML 1st place)

Experience

Software Developer

March – August 2023

DoorHan International

Remote

- Designed a web and mobile comprehensive software solution to automate and reduce the time to deliver quotes to clients by **more than 80%**, which was previously done by hand.
- Developed an admin dashboard on a **web interface using React** to streamline contractor management for administrators.
- Created a **mobile app using React Native** with both online and offline capabilities for contractors to generate automatic quotes based on client configurations, featuring compatibility filtering and pricing calculations.
- Developed a **NodeJS and Express API** for communication between the database (**PostgreSQL**), web application, and mobile application, ensuring efficient data management and coordination across the system components.

Software and Finance Intern

November 2020 – August 2023

Gestion Immobilière Anwar Inc.

Montreal, QC

- Proposed and developed a desktop application with **PyQt5 in Python** to automate the processing of a large volume of documents (notices of rent increases to tenants), improving document management **efficiency by more than 70%**.
- Worked with Microsoft Excel and Sage 50 to process and manage client data, and track monthly company spendings.

Co-Founder and CEO

June 2020 – August 2022

AXYAS Tutoring Service

Montreal, QC

- Founded an online tutoring service** to help students facing academic difficulties during the COVID pandemic.
- Grew the business over a span of 2 years, successfully generating **\$45,000 in sales**, while leveraging leadership and communication skills to pitch services, close sales, and coordinate projects within the company.
- Managed a dedicated team of **50 high school tutors** who provided educational support to over **100 students**, effectively orchestrating their efforts to meet the diverse learning needs of the student body.

Projects (Click on project titles to learn more)

Artificial Sign Language (Science Fair ISEF Project) | *Python, Tensorflow, OpenCV, SciKit-Learn, Mediapipe* 2023

- Computer vision research project** focused on translating American Sign Language to English with deep learning. Collaboration with **Professor H. Sahraoui at Université de Montréal**.
- Data analysis and web scraping in C++ and Python. Computer Vision with OpenCV, Tensorflow and MediaPipe.
- Developed **LSTM model** that could **translate 25 gestures** with **custom augmented dataset**, while acquiring a comprehensive understanding of machine learning concepts (**ANNs, CNNs, RNNs, transfer learning**).

DriveSense (Hack The North Finalist) | *Python, OpenCV, Django, React Native, JavaScript*

September 2023

- Developed a **mobile application employing machine learning** to assess the driving quality of individuals on the road, analyzing factors like speed fluctuations and leveraging computer vision for environment visualization.
- Implemented **YOLOv5 algorithm for car plate detection, traffic light colors and road signs**, developed a **custom algorithm to measure distances** in the driving environment, and created a **Django backend** to communicate with the mobile frontend.

The Chat App | *JavaScript, React, Express, NodeJS, MongoDB, Socket.IO*

July 2022

- Used the **MERN stack** to create a full stack **real-time chat application** on a web interface.
- Implemented authentication and authorization with **cookies and JWTs**, **chat history and real-time communication using sockets**.
- Learned how to manage a full stack web project, leading to a comprehensive understanding of the project lifecycle.

Education

University of Waterloo

Bachelor of Computer Science - 3.98 GPA

2023 – 2028

Waterloo, ON