

Falah Sheikh

+1 (587)-969-6241 | falah.h.sheikh@gmail.com | [LinkedIn](#) | [GitHub](#)

EDUCATION

University of Calgary

Bachelor of Science in Computer Science

Calgary, AB

Aug. 2022 – Sept. 2026

EXPERIENCE

Software Developer

Oct. 2022 – Apr. 2023

TechStart UCalgary

Calgary, AB

- Collaborated with a cross-functional team of six to deliver a project within the set timeline and scope.
- Implemented object recognition and distance estimation using Python and OpenCV to develop a robotic arm that could adapt and learn from real-time data.
- Developed a custom OpenAI gym environment for the Kinova Gen 3 robotic arm, which enabled simulated training and provided a platform for testing and fine-tuning.
- Transferred the learned policy to the physical robot in just 2.5 days using computer vision through OpenCV, enabling the robot to successfully pick-and-place objects, demonstrating the ability to apply innovative technologies to real-world problems.
- [Video Demonstration](#) | [GitHub Repository](#)

Robotics Team Member

Sep. 2022 – Mar. 2023

Alberta Collegiate Robotics

Calgary, AB

- As part of a three-person team, we collaborated to design, develop, and engineer an autonomous sumo bot with specific dimensions of 10 by 10 centimeters using CAD software and worked to adhere to a strict completion deadline so that the bot would be fully functional and competition-ready.
- Set up motor and sensor configuration for the sumo bot and calibrated sensors for optimal function using Arduino.
- Implemented autonomous control algorithms for the sumo bot to navigate its environment and optimize movements for competitive advantage during matches.
- [Video Demonstration](#) | [GitHub Repository](#)

PROJECTS

[AcademicManagementSystem](#) | *Python, Tkinter, PyMySQL*

Apr. 2022 – May. 2022

- developed GUI applications using the Python Tkinter library for database management systems, demonstrating ability to create an intuitive user interface for a student record system, with features such as input validation and data storage in a MySQL database.
- Integrating MySQL databases with Python, using PyMySQL library to establish a connection and perform CRUD operations on student records, implementing error handling for smooth execution, and displaying user-friendly messages using the Tkinter messagebox module.

[TrafficCam](#) | *Python, OpenCV*

Nov. 2022 – Dec. 2022

- Program processes video footage of traffic and detects the presence of traffic signals in each frame.
- Uses a machine learning algorithm to classify each frame as a "violation" or "non-violation" based on the traffic signal's color and the presence of vehicles in the intersection.

TECHNICAL SKILLS

Languages: HTML, CSS, JavaScript, Arduino, Python, R, SQL, Java

Frameworks: OpenCV, NumPy, Django, Tkinter

Developer Tools: Git, VS Code, PyCharm, RStudio