

HAMZAH CHAUDHRY

Computer Engineering

Vancouver, BC

hamzahchaudhry321@gmail.com | 778-752-8366 | linkedin.com/in/hamzahchaudhry/

TECHNICAL SKILLS

Languages

- C/C++
- Python
- Java
- HTML
- CSS

Tools

- Eclipse
- IntelliJ
- Visual Studio Code
- AutoCAD
- Fusion360

Hardware

- Arduino
- ESP32
- Raspberry Pi
- Breadboard
- Oscilloscope

EDUCATION

University of British Columbia

Bachelor of Applied Science – Computer Engineering

May 2028

University of the Fraser Valley

Engineering Transfer

April 2024

TECHNICAL PROJECTS

Sound Following Robot, University of the Fraser Valley

February 2024 – March 2024

- Designed and implemented an Arduino-controlled sound-following car with a simulated taser for home security, enhancing system functionality through sensor integration
- Improved obstacle detection by integrating ultrasonic sensors, ensuring precise activation of the taser within a specific range, increasing system safety and efficiency
- Conducted comprehensive testing of sound sensor modules, resulting in a 100% consistent detection rate for blowdryer stimuli at 15–20 cm, validating the system's sensitivity to airflow-based sound sources

Line Following Robot, University of the Fraser Valley

March 2023 – April 2023

- Designed and programmed an Arduino-controlled excavator robot, utilizing four IR sensors for line detection and optimized motor control, achieving successful autonomous navigation on a complex course
- Developed and integrated a trailer with LED displays, RGB lights, and a buzzer, enhancing the project with creative "pizzazz" features, including a celebratory display upon course completion
- Collaborated in a team to prototype, test, and refine the robot's performance, addressing traction issues and optimizing motor speed, resulting in improved navigation and performance

Automated Greenhouse, University of the Fraser Valley

February 2023 – March 2023

- Developed an automated greenhouse system using Arduino, integrating a soil moisture sensor and water pump to enable self-irrigation without human intervention
- Programmed a system that activated a water pump when soil moisture dropped below 45%, improving irrigation efficiency and ensuring precise plant watering
- Tested and optimized circuit designs, including the use of a relay and external power supply, to improve system reliability and prevent erratic behavior of actuators

OTHER WORK EXPERIENCE

YESCO Sign & Lighting Service, Abbotsford, BC
Overnight Sign Patroller

July 2023 – August 2023

- Inspected and documented sign and lighting outages on nightly routes using a mobile app, ensuring accurate reporting and timely maintenance
- Captured clear and detailed photos of signage issues, effectively identifying outages and troubleshooting power-related problems

Taves Family Farms, Abbotsford, BC
Agri-Tourism Attendant

September 2023 – April 2023

- Supervised high-traffic areas, managing crowds of up to 100+ during school tours, ensuring animal welfare and a safe, organized environment
- Operated tills and processed 50+ daily transactions, while efficiently stocking shelves, maintaining accuracy, and ensuring compliance with food safety standards
- Resolved customer concerns and prevented theft by maintaining vigilance and cleanliness in busy areas, contributing to a 20% improvement in overall customer satisfaction

Rosstown Natural Foods, Abbotsford, BC
Freezer Picker

June 2022 – August 2022

- Safely handled and organized boxes ranging from 20–60 lbs from a conveyor belt, efficiently palletizing them based on labels
- Ensured accurate, timely sorting of products in a fast-paced environment, while adhering to safety protocols and minimizing errors
- Collaborated with team members to optimize workflow, demonstrating strong problem-solving and communication skills

VOLUNTEER EXPERIENCE

Abbotsford Islamic Centre, Abbotsford, BC
Tutor

October 2021 – May 2023

- Tutored elementary to high school students in various subjects, specializing in math and physics
- Developed tailored study plans to improve student performance

AWARDS

Dean's List

2024

- 3.92 GPA for Winter 2024 Term

PROFESSIONAL AFFILIATIONS

Engineers and Geoscientists BC

2023 – Present

INTERESTS & ACTIVITIES

- Reading
 - Hiking
 - Baking
 - Cybersecurity (Kali Linux, Tails OS)
 - Psychological thrillers and horror films