

TECHNICAL SKILLS

- **Languages:** Python, C/C++, Bash, Java, Makefiles, SQL, LLM Prompt Engineering, LaTeX
- **Software:** VSCode, GitHub, Docker, Azure, Microsoft DevOps, Atlassian Suite, PostgreSQL, CAD Modelling, VPN
- **Packages:** Pandas, Numpy, Scipy, Dash/pyQT5, pyTorch/Tensorflow, ffmpeg, LangChain/Chainlit, Azure
- **Hardware:** Arduino/ESP32, CAN Bus, FPGA, BMS, Inverter, Motors, Servos, Sensors, Soldering, ultimeter

SELECTED PROJECTS

Formula SAE Team: Integrated in a team of engineers developing an electric Formula SAE racecar.

- Implemented C++ library to initialize communication of our car's ECU, BMS, inverter, dash, and sensor suite.
- Built a real-time PyQt5 telemetry dashboard to visualize battery cell temperatures, SOC, wheel speeds, and throttle/brake inputs from simulated CAN Bus data, significantly improving diagnostic accuracy.
- Assisted in the design, fabrication, calibration, and testing of our car's electrical harness to ensure reliability.
- Collaborated with ~10 Electrical team members using version control to meet a critical software package deadline.

My Java Web Server: Created and managed an online multiplayer Minecraft Java server.

- Built, ran, and scaled a Java server to meet demand of up to 80 players at a time.
- Developed a marketing campaign to generate \$1000+ of revenue through a custom e-commerce plugin.
- Hired and trained a 5-person team to address increased customer service requirements, enabling scalable growth.

Python Web Development: Used Python server to automate anything, for fun!

- Implemented a SQL backend, processing core, and web interface for a neural network running face and license plate detection to classify and store my live security camera feed, automating security notifications.
- Built an app using the Selenium API and webscraping to automate COVID questionnaire forms for 10 friends.

3D Computer Aided Design: Learned how to 3D design and print models for various projects.

- Drone microcontroller cargo mechanism, sailboat and electric scooter components, car and home accessories.

PROFESSIONAL EXPERIENCE

Software Engineering Intern, Evertz Microsystems, Burlington, ON

2023 – 2024

- Programmed the company's internal RAG LLM's data ingestion, frontend features, and analytics dashboard to help sales answer product questions, developers resolve issues, and augment strategic action for executives.
- Developed a DDR controller userland API to leverage GPU reducing logo stream bandwidth requirement by 50%.
- Conceived and executed a new string conversion library that patched over 200 buffer overflow vulnerabilities.
- Implemented automatic Playwright unit tests in a dev-test-live deployment pipeline for an AI SAAS app.
- Spearheaded a team of 20 co-ops to fabricate a smart microcontroller irrigation system for our garden beds.

Signals Intelligence Specialist, CAF 21 Electronic Warfare Regiment, Kingston, ON

2022

- Led military platoon of 30 recruits through a training exercise and completed 20 outdoor training missions. Fostered goal planning and problem-solving skills. Instilled cohesive teamwork through effective communication.

EDUCATION

Bachelor of Computing Honours, Queen's University, Kingston, ON

2025

- **Specialization:** Artificial Intelligence
- **Relevant Courses:** Artificial Intelligence, Algorithms, Data Structures, Reinforcement Learning, Neural and Genetic Computing, Software + Computer Architecture, Operating Systems, System Level Programming.
- **GPA:** 3.67/4.0, achieving distinction of Dean's Scholar

OSSD Ontario Scholar, De La Salle College "Oaklands", Toronto, ON

2020

LEADERSHIP AND ACTIVITIES

- **Teaching Assistant:** Elements of Data Analytics for Machine Learning (Dr. Hazem Abbas, Winter 2025)
- **Clubs:** Queen's Formula SAE Team, Canadian Undergraduate AI conference delegate, and Rock-Climbing Club
- **Volunteering:** Chef and waiter at St. Francis Table, Housekeeper at Good Shepherd Ministries
- **Interests:** Podcasts, Formula 1, Small Engine Repair, Fishing, Aquariums, Boulderling, NFL, CAD / 3D Printing