

Krish Shah

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Education

University of Waterloo

Waterloo, ON

Bachelors of Applied Science in Computer Engineering

Expected Grad: **April 2027**

Relevant Courses: Data Structures & Algorithms (C++), Embedded Systems (C), Systems Programming (C)

Recipient of **\$18,500** in scholarships recognizing academic excellence, leadership, and community involvement

Experience

Software Development Intern (Python, AI Agent Systems, Selenium, Web Scraping)

Sep 2025 – Dec 2025

HeyElsaAI

Toronto, ON

- Designed and built a multi-agent **AI system in Python** to automate investor discovery by parsing Crunchbase with **Selenium** and enriching profiles via the **Perplexity API**.
- Built an end-to-end outreach pipeline by orchestrating LinkedIn and Perplexity APIs, automating personalized communication with over **200+ investors weekly**.

Data Engineer (Contract) (Python, SQL, Pandas, AWS, Apache Airflow)

Aug 2025 – Present

Teranet

Toronto, ON

- Engineered an incremental loading mechanism using **SQL** and **Python (SQLAlchemy)** to migrate a legacy data warehouse, slashing data refresh latency by over **90%**.
- Deployed a robust ETL pipeline on **AWS** using **Apache Airflow** for daily processing of Equifax credit data.
- Developed resilient **Python scripts** using the **Pandas** library to parse, clean, and transform large-scale financial datasets from raw CSV feeds.

Software Engineering Intern (React, Flask, PostgreSQL, OpenAI, Agile)

May 2024 – Aug 2024

Dundas Life

Toronto, ON

- Engineered an AI-powered insurance agent using a **React, Vue and Flask** stack and the **OpenAI API**, improving **recommendation accuracy to 80%** and scaling the system to support **100+ active monthly users**. Developed an **ML-driven web scraper** that **cut insurance data retrieval time by 40%**.
- Spearheaded the release lifecycle for **5+ production deployments**, coordinating sprint planning and code reviews to achieve **zero-downtime feature rollouts**.

Embedded Systems Developer (C++, ESP32, RTOS, IoT, PCB)

Oct 2023 – Dec 2024

Electrium Mobility

Waterloo, ON

- Architected and built **ESP32 firmware** for a universal longboard remote, achieving **sub-10 μ s latency** for critical control signals using **Interrupt Service Routines (ISRs)** in **FreeRTOS**.
- Programmed robust wireless communication protocols (**ESP-NOW, CAN**) for a stable connection over a **100m+ range**; collaborated on **PCB design** and IoT device testing.

Projects

Moodify (React, Flask, scikit-learn, AWS, Spotify API)

May 2025

- Developed a scalable, AI-powered music platform with custom **NLP models** trained on **10K+ samples** to deliver context-aware recommendations to over **100 live users**.
- Built and deployed a **RESTful Flask backend on AWS**, architected to support **sub-200ms ML inference** for real-time, dynamic playlist generation via the **Spotify API**.

Embedded Motor Control Module (STM32, C++, FreeRTOS, PCB)

Aug 2024

- Engineered real-time **C++ firmware** on **FreeRTOS** to execute a **1kHz PID control loop**, boosting motor stability and reducing EMI under high-current loads.
- Designed and routed a custom **4-layer STM32-based PCB** for a brushless DC motor, integrating hall sensors and **UART/SPI** for real-time telemetry and diagnostics.

Technical Skills

Languages: Python, C++, C, JavaScript, SQL, Bash

Frameworks/Libraries: React, Flask, Vue, PyTorch, scikit-learn, Node.js, Express.js, Pandas, NumPy

Technologies/Platforms: Linux, MySQL, PostgreSQL, MongoDB, REST APIs, GCP, Azure, AWS, CI/CD