Frank Han

Department of Science and Engineering,
Software Engineering
University of Toronto, Toronto,

Phone: 647-222-2201
Email: franky.han@mail.utoronto.ca

Relevant Skills

Programming skills:

Experience with C, C++, Python, Pytorch, Java, Kotlin, Springboot, AWS, GIT, GitHub, Verilog, C#

Education

University of Toronto

Candidate for Bachelor Science and Engineering *Expected: June 2026*

Concentration: Major in Computer Engineering, minor in Machine Learning and Business

Relevant coursework: Digital System, Computer Organization (Arm De1-SOC), Communication and Design (C++ "google map" project), Artificial Intelligence Fundamentals, Programming Fundamentals (C++), Algorithms and Data Structures, Databases, Operating Systems

Projects

1. **Traffic Sign Recognition using GoogLeNet (Python and Pytorch)** — 2023 May-2023. September
   - A project from scratch that uses Pytorch to implement neural networks to detect traffic signs.
   - Uses more than 13,000 images from both online and real life (self-created) as data sets to train a baseline CNN model and a primary GoogLeNet model.
2. **Interactive Map Application Project (C++ and GTK)** — 2023 January-2023 May
   - Designed an interactive map application in C++. Some functionalities include navigation, route planning, interactive search box, and marking locations.
   - Utilized OpenStreetMap database for map information, and GTK and EZGL for GUI design.
   - Solved Travelling Salesman problem using multiple algorithms, including Greedy, Dijkstra's, Local Optimization, Simulated Annealing, and Iteration.
3. **Unity Pong Game (published on Steam)** — 2023.May-2023.September
   - Redesigned the popular 70s game Pong and made it with Unity C#.
   - Took care of the UIs and most of the object programming.
4. **Smart Ski Goggle (Raspberry Pi 5 and Python)** — 2024 March-Present
   - Utilized the OpenAI API for camera module functions and image recognition, audio input and output with text generation.
   - Used hardware libraries to collect key input and audio input.

Work Experiences

- Evertz Full Stack Engineer (PEY co-op, full-time, 2024 May – 2025 August)
  - Wrote kernel codes for sequence insertion in backend stream media service (Evertz.io) using Java and Kotlin and wrote unit tests for stream media service backend systems.
  - Improved kernel code from older codebase and migrated them to the new platform with new code logic, e.g., Subtitle Component, Material Component, File Definition Handler
- NetEase Embedded Test Software Engineer Intern (Full-time, 2023 June – August)
  - Tested their beta-version translator pen (voltage and behavior testing)