Shervin Darmanki Farahani

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Education

University of Toronto Toronto, ON

Bachelor of Applied Science in Computer Engineering + PEY Co-op *Expected 2028*
Minor in Artificial Intelligence Engineering and Engineering Business

- Relevant Courses: Programming Fundamentals, Digital Systems, Computer Organization, Software Design and Communication, Signals and Systems

Bachelor of Applied Science in Engineering Science, Dean's List Scholar *Sep. 2023 – May 2024*

- Relevant Courses: Introduction to Computer Programming, Computer Algorithms and Data Structures

Experience

Front-End Developer October 2024 – Present

University of Toronto Web Development Club *Toronto, ON*

- Contributed to the development of a dynamic, responsive website using **React**, improving user experience and functionality for a **community of over 200 students**.
- Collaborated with 3 developers using **Git** to build **20+ React components** with **Tailwind CSS**, achieving 98% responsiveness across 5 core site features
- Designed **responsive UI** system handling 3 screen sizes, achieving 95% cross-browser compatibility

Full-Stack Web Developer January 2025

U of T Hacks Hackathon *Toronto, ON*

- Engineered a full-stack web application that processed over 100 data points in real time by integrating **AWS S3** for deployment, intermediate file storage, and multimedia management, alongside **AWS Lambda** for API call processing from the **Gemini API** and video processing from the S3 buckets.
- Automated infrastructure deployment using **Terraform**, reducing manual setup time by 40% and enhancing scalability for AWS services.
- Designed and developed a dynamic **React front-end**, achieving a 40% increase in user feedback.

Full-Stack IoT Developer February 2025

Make U of T Hackathon — Winner of 'Best Use of Streamlit' Category *Toronto, ON*

- Designed a **Flask-based REST API** for real-time data streaming and control, achieving $\leq$ **200ms latency**
- Developed and optimized a **Convolutional Neural Network** using **TensorFlow Lite** for Raspberry Pi, achieving 70% accuracy in classifying 5 crop types from live camera feeds
- Architected a **Streamlit** dashboard for real-time telemetry and control with 5+ components for improved UI

Projects

OpenStreetMap Mapper Software (ECE297 Project) | *C++, CSS, Git* January 2025 – Present

- Designed and implemented an **efficient API** for querying and processing OSM street data, achieving $\mathcal{O}(1)$ average case look-ups through optimized data structures (e.g., **hash maps, tries**)
- Integrated **GTK and EZGL** libraries to render OSM maps with real-time zoom, pan, and search functionality, supporting up to **10,000+ map elements** with $\leq$ **100ms rendering latency**
- Collaborated in a team of 3, using **Git** for version control to streamline development workflows across milestones.

AI-Powered Calendar Scheduler | *Python* October 2024 – December 2024

- Designed a predictive model using **K Nearest Neighbours**, reducing event time prediction error by 25%
- Integrated the model with a **user interface** that allows dynamic event addition and real-time start-time suggestions, increasing scheduling accuracy by 30% based on type and duration of events
- Leveraged **Pandas, Scikit-Learn, and PyTorch** to streamline data handling, preprocessing, and **model training**, creating a seamless data pipeline that cut data processing time by 50%

Skills

Technical: C, C++, Python, JavaScript, Kotlin, AWS S3, AWS Lambda, React, Node.js, Tailwind CSS, TypeScript, Next.js, Flask, HTML, CSS, Git, SciKit-Learn, PyTorch, Terraform, Streamlit, Figma, Verilog, MATLAB, TensorFlow, Data Structures & Algorithms, Object Oriented Programming, Machine Learning, Embedded Systems, Digital Systems
Soft: Initiative, Organization, Tenacious Work Ethic, Interpersonal Communication, Resourcefulness, Teamwork, Critical Thinking, Problem Solving, Research, Attention to Detail, Fast Learner, Analytical Skills