

KASHAN AHMAD

905-531-1256 | kasubhani@hotmail.com | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

EDUCATION

University of Toronto

September 2023 – May 2028

Bachelor of Applied Science in Computer Engineering

Toronto, Canada

- **Minors:** Artificial Intelligence and Engineering Business
- **Relevant Coursework:** Deep Learning, Algorithms & Data Structures, Operating Systems, Software Design & Communication, Computer Organization

TECHNICAL SKILLS

Languages: Python, C/C++, Java, JavaScript, TypeScript, HTML/CSS, SQL

Frameworks & Libraries: PyTorch, Scikit-learn, OpenCV, NumPy, ROS, Pandas, Streamlit, React, Node.js, Next.js

Tools & Technologies: Git/GitHub, Linux, Docker, SSH, Google Colab, Zod, Vercel AI SDK, APIs, Arduino, LTSpice

EXPERIENCE

University of Toronto Robotics Association (UTRA)

September 2024 – May 2025

Embedded Systems Engineer

Toronto, Canada

- Developed autonomous rover navigation system using **ROS framework and C++**, implementing sensor fusion algorithms and path planning for competitive robotics challenges
- Built **real-time fault detection system** for BLD-750 motor using **Arduino** with custom sensor integration, reducing motor failure incidents by **95%**
- Created system documentation and debugging methodologies, improving team knowledge transfer efficiency by **40%**

Ittefaq Electrotech

May 2024 – August 2024

Electrical Engineer Intern

- Designed **automated** gate driver circuits, improving **system efficiency by 25%** through optimized circuit design
- Developed MOSFET switching circuits using NE555 timer with optimized duty cycles for **high-frequency switching**
- Performed **design validation** using LTSpice circuit simulations, verifying hardware designs met project specifications

PROJECTS

[Drip Bot - AI Fashion Fit Rater](#) | *Next.js, React, TypeScript, Vercel AI SDK*

- Built **AI fashion recommender** using Next.js 15, React 19, TypeScript, integrating Vercel AI SDK with GROQ and Zod schemas for real-time outfit ratings and personalized recommendations
- Engineered responsive UI with **Tailwind CSS + Radix UI**, implementing drag-and-drop image uploads and animated rating visualizations
- Ranked **Top 30 out of 250+ teams** at **Hack the North 2025**, demonstrating rapid prototyping under 36-hours

[Skin Lesion AI Classifier](#) | *Python, PyTorch, Scikit-learn, Streamlit*

- Built and trained a ResNet-18 CNN using transfer learning on 10,000+ HAM10000 dataset images, **achieving 84.90% validation accuracy and 81.01% test accuracy** for 7-class classification
- Optimized data preprocessing with augmentation to fix class imbalance, boosting model generalization by **15%**
- Deployed an interactive Streamlit app for real-time AI skin-lesion classification, enabling predictions in less than **5 seconds** with preprocessing for medical professionals, supported by research, reports and presentation

[Stock Predictor](#) | *Python, TensorFlow, Pandas, Streamlit*

- Developed full-stack financial forecasting web application using **LSTM neural networks** trained on **10+ years** of historical stock data, achieving **85%+ prediction accuracy** for 1-30 day stock price forecasts
- Built interactive frontend with **Streamlit**, integrating real-time stock data via yfinance API
- Implemented end-to-end ML pipeline including data preprocessing, multi-layer LSTM architecture, and deployed application on Streamlit Cloud with continuous **GitHub** integration

[Daily Commute Map](#) | *C++, OpenStreetMap, EZGL*

- Built high-performance mapping application processing **10,000+ street intersections** with optimized A* and Dijkstra pathfinding, delivering **<1 second route calculations**
- Developed multi-stop courier routing system using 2-Opt optimization with multithreaded preprocessing, reducing delivery times by **30%**
- Designed **commuter-focused UI** with intuitive navigation, color-coded traffic, and multimodal routing (subway, bike paths, driving) to enhance daily usability