KHOI NGUYEN

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EDUCATION

University of Toronto   *September 2021 – April 2026*
B.Sc. in Computer Science & Mathematics
Overall GPA: 3.58/4.00

- **Relevant Courses**: Software Design, Data Structures and Algorithms, Operating Systems, Parallel Programming, Introduction to Information Security, Scalable Computing, Computer Architecture

SKILLS

Computer Languages	Golang, Ruby, Python, SQL, Javascript/TypeScript, Java, C/C++, Shell, Bash
Frameworks and Technologies	Springboot, Express.js/Node.js, FastAPI, React, Flask, MySQL, PostgreSQL, SQLite, Docker, CUDA, Redis, AWS(S3, IoT Core, EC2, RDS, MSK),
Tools	git, perforce, jenkins, gdb, valgrind, gcc, Agile methodologies
Professional Skills	Adaptability, Problem solving, Team Player, Accountable, Reliable, Self-starter,
Languages	English, Vietnamese

WORK EXPERIENCE

Hardware Verification Infrastructure Intern   May 2024 - August 2025
Advanced Micro Devices (AMD)   *Markham, ON*

- Improved 300% performance on LSF Monitor using **Go**, **Redis**, **Svelte/Sveltekit**, and **Ruby** for managing jobs running on IBM LSF used by 200+ team members.
- Designed, implemented, and published internal paper for the 'Matrix' event-driven "AI" automation framework with a 10 person team in **Go**, **RabbitMQ** and **SQLite3** to automate communication and debug for 100+ people teams.
- Assisted in running, and improving sanity and regression system, built using **Ruby** and running on **Jenkins** for AMD's biggest project ever.

Software Developer (Intern)   June 2022 - August 2022
Nexle Corporation   *Ho Chi Minh City, Vietnam*

- Programmed the front-end of a CMS for EMEA client using **React** and **Redux**
- Designed and built the back-end, and APIs of a fitness app with 1,000+ users using **Node.js**, and **MySQL** maximizing efficiency and ease-of-use for front-end developers.
- Debugged 20+ old bugs, and bottlenecks on existing projects on both **React** front-end and **Express.js** back-end, tested new code for bugs reducing the chance of application breaking bugs.

Software Developer   July 2023 - June 2024
XtayPro Canada   *Toronto, ON*

- Designed and deployed the XTayPro Canada website using **Next.js** and **Tailwind CSS** for app with 150+ users.
- Supported a 10-person team by setting up GitHub, Trello, and cloud hosting. Using Github Actions for CI/CD

PROJECTS

DynamoHub   May 2025 - August 2025

- Lead a team of 8 students to develop an AI traffic management platform for *UrbanDynamo*
- Designed a real time system from data ingestion through sensors and Jetson Nano through to **AWS** and **Flask** backend
- Built and tested the MVP of the edge compute unit (**Python**, **Docker**) with data ingestion through to AWS IoT Core
- Connected **Flask**, **SocketIO**, **AWS MSK (Kafka)**, and **PostgreSQL** backend for realtime updates