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,

English, Vietnamese Languages

WORK EXPERIENCE

Hardware Verification Infrastructure Intern

May 2024 - August 2025

Advanced Micro Devices (AMD)

Markham, ON

- · Improved 200% performance on LSF Monitor using **Go, Svelte/Sveltekit**, and **Ruby** for managing jobs running on IBM Spectrum LSF used by 70+ team members.
- · Designed, implemented, and published the 'Matrix' event-driven "AI" automation framework with a team of 10 people in Go, and SQLite3 to automate communication and action for debug for potentially 100+ people teams.
- · Proposed and built an MVP of an internal Jira Bug Tracker using Python/FastAPI backend and React frontend.

Software Developer (Intern)

June 2022 - August 2022

Nexle Corporation

Ho Chi Minh City, Vietnam

- Programmed the front-end of a content management system for the client using **React** and **Redux**
- · Designed and built the back-end, and APIs of a fitness app using **Node.js**, and **MySQL** maximizing efficiency and easeof-use for front-end developers.
- Debugged 20+ old bugs 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

XtayPro Canada

July 2023 - June 2024

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

PROJECTS

DynamoHub

May 2025 - August 2025

- · Lead a team of 8 students to develop an AI traffic management website 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
- · Fixed frontend bugs for DynamoHub built using React, Tanstack Query, and Tailwind
- Connected Flask, SocketIO, AWS MSK (Kafka), and PostgreSQL backend for realtime updates