

# Nasif Mauthoor

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Canadian Citizen in Oakville, Ontario

## Education

- B.Eng in Computer Engineering from University of Guelph  
Status - In Progress

## Work History/Projects/Internships

*AI Software Developer, DataInn Technologies, ON* *Jan 2025 to Current*

- Built AI-powered web applications in React and TypeScript (JavaScript/HTML/CSS).
- Translated client requirements into scoped implementation plans and deliverables.
- Implemented LLM guardrails to keep responses aligned with client requirements.
- Used prompt testing and output validation loops to reduce inconsistent AI behavior.

*Lead of Development, CoCreCo - University of Guelph, ON* *Jan 2025 to Dec 2025*

- Built a campus AI/ML compute platform using Python, TensorFlow, NumPy, and scikit-learn.
- Researched, justified funding for a \$20,000 AI server rack to meet expected performance.
- Led a team of student developers to build an access web app using React and Next.js.

*Lead Full Stack Developer, Ddrops Company, ON* *Dec 2022 to Nov 2023*

- Delivered internal automated digitization tools using the Microsoft SharePoint suite.
- Built document signing applications in Python, SQL and JavaScript to reduce repeated work.
- Coordinated a team of 4 developers using Git and GitHub to build applications.

*Computer Science Tutor, Bright Learning Centre/Cloud Times Global, ON* *May 2022 to Present*

- Taught math and programming in Python, JavaScript, and C# to students of varying ages.
- Taught math, science and programming courses in both French and English.

*IT Support Technician, Reliance Home Comfort/Allstate Insurance, ON* *Sep 2020 to Apr 2022*

- Provided frontline technical support to customers with strong practical troubleshooting.
- Diagnosed incidents via phone, escalating when needed, and minimizing user downtime.

## Certificates

- Generative AI for Software Developers Specialization from IBM
- Web Development Specialization from University of California, Davis
- Tailwind CSS Specialization from Scrimper

## Projects

### *AI Agent Development Platform - [github.com/Cephalode/ai-agents](https://github.com/Cephalode/ai-agents)*

- Designed schema to work with AI agents like OpenClaw, Hermes Agent and Pi.
- Architected a gateway server coordinating autonomous AI agents to complete coding tasks.
- Integrated cron-based scheduling, skill injection, and model routing with multiple providers.

### *JackTrip Nix Flake - [github.com/Cephalode/jacktrip-flake](https://github.com/Cephalode/jacktrip-flake)*

- Developed a standalone Nix flake for JackTrip, a high-quality audio network routing system.
- Packaged complex dependencies to ensure reproducible builds across Nix environments.

### *Multi-System NixOS/Nix-Darwin Configuration - [github.com/Cephalode/nixcfg](https://github.com/Cephalode/nixcfg)*

- Maintained a comprehensive Infrastructure-as-Code repository in Nix for hardware systems.
- Automated reproducible system deployments for Windows 11 WSL, macOS and Linux.

### *Cal-Suite (Cal-TUI & Calarme) - [github.com/Calarme](https://github.com/Calarme)*

- Developed a web application in React & Next.js that manages system-wide notifications.
- Engineered a unified, cross-platform calendar alarm suite for keyboard-centric workflows.
- Built a highly responsive Terminal UI in Rust for rapid management and optimized control.

### *Keyboard Layout Editor - [github.com/adamws/kle-ng](https://github.com/adamws/kle-ng)*

- Contributed to a web-based visualization tool for designing custom keyboard layouts.
- Maintained an interactive graphical interface for editing keymaps and switch spacing.

### *Custom Unix Shell - [github.com/Cephalode/myShell](https://github.com/Cephalode/myShell)*

- Developed a command-line shell to learn about operating system internal processes.
- Implemented core shell functionality including process execution, piping, and I/O redirection.