

OM NATHWANI

CANADIAN CITIZEN

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Education

University of Waterloo & Wilfrid Laurier University
BCS & BBA, Computer Science and Business Administration (Co-op)

Waterloo, Ontario
2024 - 2029

- **GPA:** 3.65/4.00
- **Extra-curricular:** Dual-Varsity Athlete in Cross Country and Track
- **Awards/Scholarships:** President's Gold Scholarship (95-100% entry average) - **\$4,000 per year**

Technical Skills

- **Languages:** Java, Python, Racket, JavaScript, HTML, Lua, CSS, C#, C
- **Libraries/Frameworks:** Pytorch, Pandas, NumPy, React.js, MediaPipe, Flask, Unity, Computer Vision, Llangchain
- **Developer Tools:** PyCharm, Visual Studio Code, Git, Github, AWS, QuickBooks, Excel, Roblox Studio

Experience

Software Engineer Intern

Covalense Digital | Python, RAG, Llangchain, Ollama

May 2025 – Ongoing
Mississauga, Ontario

Software Engineer

Wat.AI | Python, AWS, RESTful APIs, OpenAI, RAG

Sept. 2024 – Ongoing
Waterloo, Ontario

- Working with the **Pitch.AI team and Waterloo AI** to incorporate ML workflows to develop a large language model, which through **RESTful APIs** uses generative AI to create movie pitches from basic plot information, operating with a **React.js** powered front-end.
- Completed **extensive research** on multiple topics such as Retrieval Augmented Generation, Modular AI forms, and Agentic AI, utilizing **Google Scholar and UWaterloo's library database** to determine applicability to our work.

Junior Bookkeeper

Vizhen Books | QuickBooks, Excel

June 2023 – August 2023
Toronto, Ontario

- Achieved proficiency in bookkeeping tasks using **Excel** by reviewing taxes, creating aging reports, and auditing transaction reports with **over 1000 entries**, resulting in **improved accounting efficiency**.
- Completed **QuickBooks training modules**, resulting in the ability to match invoices, **perform tests** and audits, escalate major discrepancies and **create documentation** to resolve issues.

Coding Instructor

Code Ninjas | JavaScript, C#, Excel, Roblox Studio, Unity, Lua

March 2021 – January 2023
Oakville, Ontario

- Created and executed **4 weeks of lesson plans** on using **Lua** to build games in Roblox Studio.
- Enhanced student proficiency in **JavaScript** fundamentals by **managing and teaching classes of up to 30 students**, **developing their ability to solve problems** through coding and creating interactive games.
- Improved understanding of higher-level students by answering questions and **facilitating one-on-one instruction** in **C# on Unity** and other topics which other instructors could not cover.

Projects

LearnETF ↗ | Python, Plotly, Pandas, NumPy, Yfinance, React.js, Flask RESTful API, OpenAI RESTful API

January 2025

- **Sun-Life Case Winner @ GeeseHacks 2025**
- Developed an **AI-powered financial literacy platform** using **React.js** and **TypeScript**, along with a **Flask** powered backend, to help young adults build the confidence to invest.
- Integrated **OpenAI models** to classify user input, and tailor financial education modules, enabling a customized learning experience.
- Engineered an **interactive simulation tool** using **Plotly**, **NumPy** and **historical market data integrated using YFinance's RESTful API**, allowing users to visualize potential trade returns in real time.
- Integrated **LearnETF** with **Sun Life Financial Services'** web page to help Sun Life achieve its goals of enhancing digital offerings and expanding its reach to Gen Z and Gen Alpha.

Insurance Claim Helper ↗ | Flask, Python, AWS, OpenAI RESTful API

January 2025

- Built an AI assistant to help users file their insurance claims **by integrating and fine-tuning OpenAI's RESTful API** using prompts containing instructions and data on user-insurance policy.
- Trained the AI assistant with the user's insurance policy and information uploaded to the website, **using AWS S3 bucket to store the data and Flask to build a lightweight RESTful API** integrating the front end and the backend.

RaceSmart ↗ | MediaPipe, Python, PyTorch, React.js, HTML, CSS, JavaScript, OpenAI RESTful API, AWS

July 2024

- Built an application that provides detailed feedback on a user's running technique to prevent injury and enhance the performance of intermediate runners, implementing **Computer Vision** software using **MediaPipe** and **PyTorch** to draw triangles and compare joint angles to ideal ranges.
- Developed a recommendation engine using **OpenAI's RESTful API** to perform precise foot profiling and assess biomechanics. The LLM was fed information on accepted foot positions, the top running shoes in Canada's current market and user-uploaded images through **AWS's S3**. The software utilizes ChatGPT's image recognition ability to determine users' pronation or supination tendencies, and come up with **customized footwear solutions** to optimize comfort and running efficiency.