Om Nathwani

Canadian Citizen

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Education

University of Waterloo & Wilfrid Laurier University **Waterloo, Ontario**
BCS & BBA, Computer Science and Business Administration (Co-op) *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 Interm **May 2025 – Ongoing**
Covalense Digital | Python, RAG, Llangchain, Ollama *Mississauga, Ontario*

Software Engineer **Sept. 2024 – Ongoing**
Wat.AI | Python, AWS, RESTFul APIs, OpenAI, RAG *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 **June 2023 – August 2023**
Vizhen Books | QuickBooks, Excel *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 **March 2021 – January 2023**
Code Ninjas | JavaScript, C#, Excel, Roblox Studio, Unity, Lua *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.