

VISHAAL GOPALAN

U.S/Canadian Citizen

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Education

University of Toronto

Sep. 2024 – May 2028

Bachelor of Applied Science in Computer Engineering + PEY CO-op

Toronto, ON

Relevant Coursework: Object Oriented Programming (C++), Data Structures (C), Computer Architecture and FPGA Systems (Verilog)

Experience

UofT Engineering Student Consulting Association

Jan 2025 – Present

Executive Software Engineer

Toronto, ON

- Built a full-stack event and application management system that replaced manual file-based workflows and supported **1,000+** executive and student users.
- Developed secure, scalable APIs using **Python**, **FastAPI**, and **PostgreSQL** (Supabase) with role-based access control for authentication, applications, and event management.
- Integrated external services including **Google Photos API** for event photo hosting, **Google Drive API** for application file access, and **Supabase Email/Gmail API** for automated notifications.
- Designed a responsive user profile and authentication settings page using **React** and **Shadcn UI**, integrating secure **REST APIs** to support updates across **5** core profile fields and secure password changes.

Solaris

May 2024 – Present

Backend Engineer Intern

Toronto, ON

- Engineered a GTA-wide healthcare facilities backend using **Python** and **RESTful APIs**, modeling **100+** hospitals, urgent care centers, and clinics across **12** municipalities and **5** health regions.
- Designed geospatial and relational data models in preparation for **PostgreSQL** and analytics workloads, including region tagging and coordinate indexing.
- Aggregated and normalized multiple public healthcare datasets into a clean API used by the frontend for real-time visualization.

Projects

Moodify | Python, Spotify API, FastAPI, PyTorch, JavaScript

Nov 2025

- Engineered an AI - powered music recommender using **Python** and **FastAPI** to generate personalized Spotify songs based on user's mood.
- Implemented an emotion classification pipeline using a fine - tuned **Hugging Face Transformers** model, achieving a **93%** accuracy rate on real-time text analysis.
- Optimized API performance by developing a multi-tiered request strategy for the **Spotify API**, increasing song generation success to over **99%**.

ToneShift | Python, ChatGPT API, Google Cloud Platform

Apr 2025

- Data scraped **500** global news articles to form a comprehensive dataset.
- Utilized **ChatGPT API** to rewrite the articles in various tones of voice by implementing **Python** scripts to automate the process.
- Leveraged **Google Cloud Platform** to train collected dataset and fine - tuned model using **OpenAI** to automate the generation of content with any tone of voice.

Utopia | JavaScript, AWS, Python, CSS

Jan 2025

- Developed a real- time event mapping website using **React** and **CSS** that enabled users to view faculty events closest to their location.
- Utilized **DynamoDB** to store and retrieve event data, ensuring fast and reliable querying for real- time updates
- Recognized as a top **10** finalist for innovative implementation and impactful project design.

Technical Skills

Languages: Python, SQL, Java, C++, C, HTML, CSS, JavaScript, Swift, MATLAB

Developer Tools: VS Code, Git, Eclipse, Google Cloud Platform, Altium

Technologies/Frameworks: PyTorch, React, Figma, Github, MS Suite, Adobe Firefly, Canva