

Nidhi Subrahmanya

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Education

BASc. Candidate, Honours Computer Engineering
University of Waterloo

September 2024 – April 2029

Skills

- **Languages/Frameworks:** Python, C/C++, Java, JavaScript/TypeScript, React, Vue.js, Flask, Next.js, Tailwind CSS
- **Tools/Databases:** PostgreSQL, Supabase, MongoDB, Power BI, Power Automate, MS Fabric, Dataverse
- **Hardware:** STM32 Microcontrollers, Breadboarding, VHDL
- **Soft Skills:** Leadership, Teamwork, Problem-Solving, Communication, Time-Management, Initiative

Work Experience

AI & Data Analyst • Gay Lea

May 2025 – Aug 2025

- Automated **pricing approval workflows** with Power Automate, **cutting manual validation by 60%** and reducing approval turnaround from days to hours.
- Built a **Microsoft Fabric AI Agent** on master data, enabling natural language queries and fuzzy item matching that streamlined access to **key data** including **sales forecasts, purchase orders, and safety metrics** for 100+ employees.
- Designed and deployed a **Power App integrated with Dataverse** for real-time shortage tracking, improving supply chain visibility and helping managers proactively address **10+ monthly shortages**.

Web Developer • Electrium Mobility

Jan 2025 – Apr 2025

- Contributed to the **frontend of the Electrium Mobility Shop** using React, TypeScript, and Next.js, assisting with UI improvements and debugging.
- Helped maintain a **Supabase (PostgreSQL) backend**, supporting the development of a **product rating system** and **improving query performance**.

Technical & Personal Projects

TheraMind – AI Therapist

June 2025 – Aug 2025

- Developed a **React website with Gemini API** to provide real-time, conversational therapy sessions, supporting both anonymous and authenticated sign-ins.
- Integrated a **MongoDB backend** to log and retrieve past chats, enabling users to track therapy history and progress over time, with added **daily check-ins and curated mental health resources**, creating a personalized and accessible companion for emotional well-being.

DermaCare – AI-Powered Skincare Scanner

May 2025 – June 2025

- Built a **Flask + Tailwind CSS web app** with barcode scanning (QuaggaJS) to instantly analyze skincare product ingredients via the **INCI Beauty API**.
- Highlighted harmful chemicals based on medical research and generated a **personalized safety score** using the user's skin profile with **safer product alternatives, tips and recommendations** using Gemini API.

Podcastify – AI-Powered Textbook-to-Podcast Web App

Jan 2025 – Feb 2025

- Built a **Vue.js + Flask app** that converts textbooks (PDF/DOCX) into summarized podcasts in **<4 seconds** using NLP (spaCy, NLTK) and Speechify API.
- Added a chatbot (Voiceflow API) so students can **ask questions and get AI-driven explanations**, making studying more interactive.

Automated Soil Irrigation System with Real-Time Moisture Detection

Sept 2024 – Dec 2024

- Built an automated irrigation system with **±5% soil moisture accuracy** to support individuals with cognitive impairments.
- Programmed **STM32 microcontrollers in C** to trigger pumps **within 10s of <30%** moisture and provide real-time LED feedback.