

Kavin Mohanadas

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EDUCATION

University of Waterloo

Bachelor of Mathematics, Honours Mathematics

Waterloo, Ontario

Sept. 2025 – April 2030

EXPERIENCE

Founder / Developer

Built.km

Feb. 2026 – Present

Toronto, Ontario

- Engineer and ship production-ready digital products by translating real-world client problems, requirements, workflows, and design goals into custom software solutions.
- Built and delivered 20+ websites and digital products for clients including Queen's University, Evolve Performance, Ksbvndz, and other businesses, organizations, and creators.
- Own the full product lifecycle from client discovery and solution design through full-stack development, UI/UX implementation, deployment, iteration, and ongoing support.
- Work directly with clients to understand how their product should look, function, and solve their business needs, turning ambiguous ideas into shipped, user-facing software.

Full Stack Engineer

Alma Mater Society of Queen's University

Jun. 2026 – Sep. 2026

Kingston, Ontario

- Engineered a full-stack campus event discovery platform combining an interactive Mapbox campus map with a centralized PostgreSQL event database.
- Built responsive React interfaces and backend APIs for searching buildings, discovering events, filtering by time/category, and managing event data.
- Integrated campus geographic data with database-driven event information and built staff-facing functionality for authorized event management.

Provincial Executive

Special Olympics Ontario

Sep. 2023 – Present

Toronto, Ontario

- Selected as a Unified Leadership Council Member to represent youth athletes across Ontario and contribute to province-wide Special Olympics initiatives.
- Collaborated with organizers and youth leaders to improve athlete engagement and leadership programming.
- Delivered a closing speech at the Youth Summit during provincial championships to 200+ attendees.

PROJECTS

Kavin AI | LLMs, RAG, Next.js, FastAPI, PostgreSQL/pgvector

Oct. 2026 – Present

- Developing a conversational AI portfolio powered by locally hosted **Qwen3.5-4B** via Ollama, using a Next.js frontend and FastAPI backend to answer questions about professional experience, projects, and leadership.
- Implemented hybrid retrieval-augmented generation (RAG) over **20 reviewed portfolio documents** (113 indexed chunks), combining PostgreSQL/pgvector semantic search and full-text retrieval with reciprocal rank fusion to ground responses in approved source material.
- Configured baseline, persona-prompted, and retrieval-grounded inference modes to compare response relevance, factual accuracy, and conversational voice; a fine-tuned model integration is reserved for future development.
- Prepared a **95-question held-out evaluation set** and established public-content review requirements to identify hallucinations, verify project claims, and keep restricted personal information out of published AI responses.

Court Finder | Interactive Mapping, AI

Jun. 2026 – Aug. 2026

- Engineered a custom platform for discovering basketball courts across Toronto, including courts in parks, schools, and community centres.
- Built an interactive map with detailed court locations and an AI-powered system that dynamically reflects user-reported court activity.

- Evolve Performance | *Headless Shopify, Storefront API*2026
- Designed and developed a fully responsive e-commerce storefront for Evolve Performance, a weightlifting equipment brand.
 - Implemented a headless Shopify architecture connecting a custom frontend to Shopify’s Storefront API while maintaining full control over the shopping experience.

- Piece of Cake Junk | *Full-Stack, Clerk, Resend*2026
- Built a complete digital platform combining a customer-facing website with a custom business management backend for a junk removal company.
 - Developed an administrative dashboard for bookings, estimates, services, availability, customer data, and email marketing, integrating Clerk authentication and Resend.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL, JavaScript
Frameworks: React, Next.js, Node.js, Flask, FastAPI, SwiftUI
Tools: PostgreSQL, pgvector, Ollama, Firebase, Git, GitHub, Docker, Mapbox, Shopify, Cloudflare
AI / Development: LLMs, RAG, Semantic Search, Hybrid Retrieval, AI Evaluation, REST APIs, Full-Stack Development, E-Commerce, Database Design, UI/UX

HONORS & AWARDS

- David Branch Leadership Scholarship — 1 of 5 RecipientsOct. 2025
- University of Waterloo President’s Scholarship of DistinctionMay 2025

CERTIFICATIONS

- IBM — Introduction to DevOpsAug. 2024
- IBM — Introduction to Cloud ComputingAug. 2024