

Guransh Singh Kohli

✉ g4kohli@uwaterloo.ca ☎ +1 (416) 722-0061 🔗 LinkedIn 🌐 Portfolio 📄 GitHub

EDUCATION

University of Waterloo - Bachelor of Mathematics , Co-op Sept. 2025 - Exp. Dec'2029
Double Major: Applied Mathematics in Machine Learning & Statistics **Minor:** Computing
Certifications: AWS Cloud & AI Practitioner, ML Specialization by Andrew Ng, Google Cloud Gen AI
Coursework: Data Structures & Algorithms, Object Oriented Programming, Statistics, Logic & Computation

EXPERIENCE

Windscribe - 8 Month Coop Toronto, CA
AI Engineer May 2026 - Dec 2026

- Cut support escalations by **90%** by revamping Garry, an **OpenClaw**-based conversational chatbot, across 15+ intents.
- Reduced **API token usage** by **65%** by rewriting an internal LLM support tool's prompt and generation pipeline.
- Projected **\$32K** in annual savings by building a **Stripe dispute analyst** combining Stripe APIs with **agentic workflows**.
- Cut manual time by **20%** with **Feedback Radar**, an automated pipeline turning multi-source feedback into reports.

University of Waterloo Waterloo, ON
AI/ML Undergraduate Researcher Oct 2026 - Present

- Researching information retrieval and **LLM-based reranking** for **RAG** under **Prof. Jimmy Lin** in the Data Group.
- Reproduced **BM25**, dense and learned sparse retrieval on 8.8M MS MARCO passages, contributing to **Anserini**.
- Built a two-stage search pipeline (**BM25** + **monoT5** reranker) with RankLLM, improving ranking quality by **37%**

WAT.ai Waterloo, ON
Data Science Engineer Sept. 2026 - Present

- Built a modular **Python ETL pipeline** processing **100k+ tracking records** across **64 matches** into a unified schema.
- Engineered **7+ spatial features** with **Pandas** and **NumPy**, converting raw player-tracking data into model-ready inputs.
- Automated validation across an **8-stage** data pipeline, producing reproducible ML-ready datasets for run-value modelling.

Savi Finance Toronto, ON
Software Developer Nov. 2025 - May 2026

- Shipped trip-logging and expense-tracking features for **1.5K+ users** by building RESTful APIs in **Go** backed by **MySQL**.
- Cut core expense-tracking query latency **5x (2s to 400ms)** by redesigning **relational schemas** & optimizing SQL queries.

TECHNICAL PROJECTS

QuantPilot - Stock Intelligence Platform *LangGraph, Kafka, PySpark, Neo4j, FastAPI, PostgreSQL* 📄

- Architected an **event-driven research platform** with a **FastAPI** backend, surfacing second-order impacts of market.
- Built **Kafka** + **PySpark** streaming pipelines ingesting and processing financial, news and research data in real time.
- Modelled companies, technologies, investments & partnerships in **Neo4j knowledge graph** for relationship-driven analysis.
- Orchestrated **LangGraph multi-agent** research workflows with source verification, persisting evidence in **PostgreSQL**.

Wanderers.space 🌐 *Founding Engineer* Jan. 2026 - Present

- Launched **Wanderers**, a **Next.js** campus social platform, growing to **46 MAU** among verified Waterloo students.
- Architected **REST APIs**, **real-time pub/sub** and **live chat**, powering activity matching, feeds and group interactions.

RoadSafe AI - US Road Safety Analytics *Python, dbt, PostgreSQL, Docker, Scikit-learn, Tableau* 📄

- Built a **Dockerized dbt** + **PostgreSQL** pipeline modelling **100K US crash records** into a **star schema**.
- Found national rain vs clear severity gap was driven by **state mix**, not weather (California +0.46 pp vs Florida +9.45 pp).
- Benchmarked Scikit-learn models against an **80.55%** majority-class baseline & published findings to a **Tableau** dashboard.

SKILLS

Languages: Python, Go, C++, C, JavaScript, TypeScript, SQL, Racket
Web & Infra: FastAPI, Next.js, React, REST APIs, GraphQL, PostgreSQL, MySQL, Redis, Supabase, Docker, Git, Linux
AI & ML: PyTorch, Scikit-learn, XGBoost, NumPy, Pandas, LangGraph, OpenClaw, MCP, RAG, Cloud, LLM's(Cursor, Claude, Codex)