

KAPIL IYER

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EDUCATION

University of Waterloo, Canada

Expected 2030

Candidate for Bachelor of Math Co-op

Double Major: Applied Math - Scientific Machine Learning and Statistics, Computing minor

Relevant courses: Calculus I, II, Linear Algebra, Data Structures, Probability, Algorithm Design, Financial Statements

SKILLS & CERTIFICATIONS

Languages: Python, JavaScript, SQL, HTML, CSS

AI/ML: PyTorch, scikit-learn, Pandas, NumPy, Matplotlib, Plotly, ChromaDB, RAG, Prompt Engineering

Data/Web Dev Excel, Tableau, PowerBI, Flask, SQLite, PostgreSQL, Express.js, React

Tools: Docker, Git/GitHub, Hugging Face, Bloomberg Terminal, Streamlit, Render, Vercel

Certifications: Bloomberg Market Concepts (BMC), Bloomberg Spreadsheet Analysis (BQL)

EXPERIENCE

Wat Street - UWaterloo Quantitative Finance Design Team

January 2026 - Present

ML Engineer - Volatility Contagion Explorer Team

Waterloo, Canada

- Modeling volatility contagion across **S&P 500 assets** using **Temporal Graph Neural Networks** with **rolling correlation** and **Graphical Lasso** for sparse covariance estimation
- Benchmarking T-GNN predictions against **GARCH** and **HAR-RV** baselines using **RMSE** and **Diebold–Mariano tests** to evaluate predictive performance

Dazia Consulting Inc.

November 2025 - January 2026

AI Engineer

Kitchener, Canada

- Expanded **RAG** system processing **1,500+** pages of **CSC/IFIC certification** content using **Google Gemini 2.5 Flash** and **ChromaDB** to generate contextually grounded exam questions and tutor responses
- Built **Express.js REST APIs**, **React** frontend and **rate-limiting** with **CORS** to enable freemium usage controls
- Reduced token usage by **30%** through **prompt engineering** and retrieval optimization, deploying a **vector store** using **Docker** to support a freemium business model

UW Data Science Club

September 2025 - Present

Outreach Coordinator

Waterloo, Canada

- Coordinating corporate outreach for **CxC 2026**, Canada's largest student-run datathon for 300+ participants using **Apollo.io**, achieving a **35% response rate** for event sponsorships

TECHNICAL PROJECTS

PlainCents - Personal Finance Analytics Dashboard

- **Objective:** Build a dashboard combining investment tracking and spending analysis for personal financial insights
- Implementing **K-Means clustering** for automated expense categorization and **Random Forest models** for spending forecasts, achieving **80%+** categorization accuracy with an interactive **PowerBI** dashboard
- **Tech:** Python, scikit-learn, SQLite, Pandas, NumPy, Plotly, yfinance, PowerBI

RiskFecta - Quantitative Portfolio Intelligence Platform

- **Objective:** Build a portfolio analytics platform to make professional risk metrics accessible to retail investors
- Developing a hybrid forecasting engine with rolling-window cross-validation, combining **XGBoost** and **LSTM models**, optimizing allocation via **Modern Portfolio Theory** along the **Efficient Frontier**
- **Tech:** Python, PyTorch, scikit-learn, PostgreSQL, Matplotlib, Plotly, Bloomberg API, Tableau, Streamlit Cloud

VectorMate - Neural Network-Driven Chess Engine

- **Objective:** Build a NN chess engine using supervised learning on expert games, targeting **1000+ ELO**
- Building **CNN policy network** using **Minimax** with **Alpha-Beta** pruning for inference latency and search depth
- **Tech:** Python, PyTorch, Flask, Hugging Face, Render, Vercel