

Karina Moffat

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EDUCATION

Queen's University

Kingston, ON

Bachelor of Applied Science in Computer Engineering (AI Stream)

Class of December 2025

- Queen's University Excellence Scholarship (94%+ average), 3x Dean's Honours, Rewrite the Code
- Courses (A+): Artificial Intelligence, Machine Learning, Data Analytics & AI, Data Structures & Algorithms

PROFESSIONAL EXPERIENCE

Software Engineer (AI/ML)

January 2026 – Present

Ernst & Young

Toronto, ON

- Engineering a computer vision AI product to automate video monitoring, reducing manual review time by **80%**
- Setup **Azure** cloud infrastructure, deploying **Azure Kubernetes Service** and **Container Apps** with **Virtual Machines** and **PostgreSQL** for scalability, and implemented **CI/CD pipelines** to save **70%** of developer time
- Orchestrated **4 microservices** built with **LangGraph**, **Kafka**, **Redis**, **FastAPI** and **Elasticsearch**, integrating **RAG**, agent orchestration, event streaming, and caching to improve generated response accuracy by **85%**
- Added a dual-level ingestion pipeline to save token costs by **60%**, using lightweight **object detection models** for L1 analysis and only escalating video chunks to L2 analysis with **GPT-5** if critical objects were detected

Software Engineer (AI/ML)

Sep. 2024 – Dec. 2025

OpenJustice

Remote

- Built a full-stack, no-code AI platform using **React**, **TypeScript**, and **Next.js**, orchestrating **multi-LLM** workflows and **REST APIs** to mimic lawyer reasoning, cutting lawyer analysis time by **75%**
- Developed the RAG system using **Python**, **Selenium**, and **vector databases (Qdrant)**, scraping **200+** documents and improving embedding accuracy by **40%** through a custom chunking and extraction framework
- Implemented **reinforcement learning from AI feedback**, using scoring **heuristics** to refine outputs, resulting in responses that are **80%** more aligned to lawyer tone and language

Teaching Assistant

Sep. 2025 – Dec. 2025

Queen's University

Kingston, ON

- Instructed students on data structures in **C**, including efficient algorithms, graphs, hash tables, and linked-lists
- Supervised a body of **400** students through assistance with labs and grading code to enhance learning outcomes

Software Engineering Intern

May 2023 – Aug. 2023

Bell Canada

Toronto, ON

- Built production-ready features with **Go** for Bell's **WAF** to protect **20M** daily users from cyberattacks
- Increased detection accuracy by **20%** by creating a geolocation filter, using **MongoDB** and **Postman** to extract **70+** IP addresses from incoming requests and mapping them to corresponding cities
- Refactored the monolithic WAF into microservices, containerizing components and orchestrating them using **Docker**, **Kubernetes**, **Elasticsearch**, and **Kafka**, reducing system-wide failures by **30%**

Quality Assurance Intern

May 2022 - Aug. 2022

- Automated a **120+** regression test suite using **Apache Groovy**, saving **3+ hours/week** of engineering time

EXTRACURRICULAR EXPERIENCE

Software Lead

Mar. 2023 – Dec. 2025

CREO Solutions – Canada's Top Student Consultancy

Kingston, ON

- Created a chatbot using **webhooks**, **OCR**, and **RAG**, reducing hallucinations by **60%** with grounded responses
- Enabled multilingual input using **speech-to-text models** in English and Spanish, serving **200+** more customers

Competitor, 3rd Place

January 2023

Queen's Engineering Competition – Programming

Kingston, ON

- Developed a sports analytics platform using the **Spotify API** to suggest games based on behavioural patterns
- Integrated real-time sports data and friend activity using **REST APIs** and **Firestore**, retaining **10%** more users

TECHNICAL SKILLS

Languages: Python JavaScript/TypeScript, Go, C/C++, Java, SQL, Bash, HTML/CSS, Assembly, Verilog, MATLAB

Frameworks: FastAPI, React, Node.js, LangGraph, PyTorch, TensorFlow, NumPy, Scikit-Learn, Pandas, OpenCV

Tools: Git, Docker, Azure Cloud Services, Kubernetes, npm, Snowflake, Redis, Power BI, Cursor, Claude Code