

## EDUCATION

## University of Waterloo

Waterloo, ON

Software Engineering + AI Specialization, Honours, Co-op; **GPA: 3.97/4.00**

## SKILLS

**Languages:** Python, C/C++, Java, Ruby, JavaScript, TypeScript, TailwindCSS, SQL**Technologies:** Next.js, React.js, PyTorch, Docker, Rails, Flask, OpenCV, TensorFlow, Kubernetes, Pandas

## EXPERIENCE

## Shopify

Ottawa, ON

Software Engineering Intern

May 2025 – Present

- Built internal hiring and placement infrastructure for the Shopify Talent team using **Ruby on Rails**, deploying features across multi-user platform backed by a **MySQL** database.
- Designed and implemented several AI-focused features, including a **Model Context Protocol (MCP)** to enhance data retrieval and processing efficiency, resulting in a **30%** reduction in data processing time.
- Engineered a **semantic search** for internal Talent discussions, leveraging cosine similarity on vectorized natural language through OpenAI integration, improving retrieval relevance across 1,000+ entries.

## Ericsson

Kanata, ON

Software Engineering Intern

Jul. 2024 – Aug. 2024

- Improved data retention and analytics by developing a full-stack Grafana Dashboard report generation tool for the CloudRAN team, achieving a **96%** accuracy rate.
- Engineered the frontend using Angular and **Axios** for HTTP requests and authentication, while designing a **Flask-based backend** within a **Docker** container on an Ericsson Kubernetes supercluster.
- Led the software architecture design, ensuring production readiness for **3,500+** Ericsson developers.

## Ottawa Hospital Research Institute

Ottawa, ON

Data Science Intern

Jul. 2023 – Oct. 2023

- Created analytics systems for datasets of **2,500+** patients across **50+** dimensions with **Python** and **Pandas**, revealing trends, patterns, and outliers for data-driven decision-making.
- Built reusable data pipelines, reducing analysis time by **5+ min. per patient** in preprocessing.
- Implemented the Kidney Failure Risk Equation (KFRE), generating risk reports and patient assessments in the prevention of Chronic Kidney Disease (CKD) and a dataset basis for future AI research initiatives.

## PROJECTS

🔗 **Bigram Neural Network** | PyTorch, Python, Jupyter | July. 2025

- Implemented a **bigram language model** through a **PyTorch** neural network from scratch, achieving **85%** accuracy in next-word prediction on custom text datasets.
- Designed and trained a **multi-layer perceptron (MLP)** architecture, implementing embedding layers, tanh activation, and softmax output with cross-entropy loss optimization.

🔗 **LooGuessr (Winner at Hack the North '24)** | MappedIn SDK, Next.js, MongoDB | Sept. 2024

- Developed a full-stack social media application built to familiarize UWaterloo freshmen with their campus and surrounding areas by using a campus-wide hide & seek map.
- Won **3rd place** and **CAD\$300** in the Hack the North API category out of **1000+ participants**.

🔗 **UberBike (Uber Global Hackathon)** | Python, NumPy, Pandas, pyFolium | Sept. 2023 – Oct. 2023

- Developed a quantitative model to assess the feasibility of introducing electric bicycles in Uber markets.
- Earned international recognition as a **North American Qualifier** among **2,500+** competitors.

🔗 **Rocket Lander Web Game** | Godot Game Engine, Python, GDScript, C# | Jul. 2023 – Aug. 2023

- Designed and developed a **published browser game** as an exercise in game development and shipping.
- Utilized the **Godot Game Engine** and Python-based scripting for game mechanics and logic implementation, leading to **125+** plays.