

LARRIS XIE

larris.xie@uwaterloo.ca · 437-974-6166 · larris.me [↗](#) · LinkedIn [↗](#) · GitHub [↗](#)

EDUCATION

University of Waterloo

Bachelor's of Computer Science

Nortel Institute Scholarship and President's Scholarship Recipient (\$6000)

Sep 2024 - May 2028

4.0/4.0 GPA

EXPERIENCE

Meta x MLH

Production Engineer Fellow

Jun 2025 - Sep 2025

- Deployed **production-grade infrastructure on CentOS** with Docker, NGINX, and DNS management; configured system monitoring with Prometheus and Grafana to ensure reliability and **observability**.
- Automated **CI/CD workflows** with GitHub Actions, integrating tests, linter checks, and performance monitoring to streamline deployments and improve system reliability.

Shopify

Software Engineer

May 2025 - Aug 2025

- Designed and implemented scalable **data models and GraphQL APIs** in Ruby on Rails, powering a fully extensible cash management experience for **2M+ active retailers**.
- Built and deployed full-stack features for Shopify Point of Sale (POS) in **React Native and Typescript**, resolving critical race conditions in async workflows to reduce failure rate by **40%**.

University of Waterloo

Research Assistant — Security and Privacy in ML with Dr. Florian Kerschbaum

Jan 2025 - Apr 2025

- Constructed a protocol for **vertical federated learning** in PyTorch to securely align and train on distributed credit card time-series sequences.
- Fine-tuned **transformer models** from Research on Tabular Deep Learning and optimized hyperparameters with Optuna, achieving a **95% F1 Score** despite a **10000:1** class imbalance.

Jobeyze

Software Engineer

Dec 2024 - Mar 2025

- Spearheaded the development of an **automated web scraper** using Selenium and PHP Laravel, extracting **1200+ job postings daily** and eliminating manual collection entirely.
- Built a **RESTful API** with a structured **MySQL** schema, enabling real-time syncing of postings and application links across platforms used by thousands of active users daily.

PROJECTS

On The Dot (1500+ users) [↗](#) | React, Supabase, PostgreSQL, Python, GCP

- Launched a trivia game with persistent game state and anonymous user tracking—**7000+ plays in 2 months**.
- Architected a Supabase backend with custom PostgreSQL functions to achieve **20ms read/write latency** on **30K queries** for real-time statistics tracking and rate control.
- Designed an animated React frontend with Framer Motion and real-time progress updates.

LifeOS (Hack the 6ix Winner) [↗](#) | React, FastAPI, Redis, Docker, Qdrant, Supabase, AWS

- Engineered a **distributed video processing pipeline** using Redis Queue that orchestrates semantic analysis with TwelveLabs, embedding generation, and cloud storage via **asynchronous workers**.
- Deployed a **containerized API service with Docker**, FastAPI, Pydantic models, and JWT middleware; supported modular features like authentication, video ingestion, memory search, and chat.

Published Machine Learning Research Paper [↗](#) | Python, XGBoost, Pandas, NumPy

- Analyzed a financial transaction dataset using Python and trained an **XGBoost model** to classify fraudulent organizations with **99.9315% accuracy** and a **0.001% false positive rate**.
- Published a peer-reviewed research paper in the **Journal of High School Science** [↗](#) under the supervision of Dr. Maria Konte.

SKILLS

Languages: Python, Java, JavaScript, TypeScript, C, C++, C#, Ruby, SQL, R, Go
Frameworks: React, NextJS, ExpressJS, NodeJS, Flask, Rails, PyTorch, TensorFlow
Databases: MongoDB/NoSQL, SQLite, MySQL, PostgreSQL, Supabase
DevOps: Linux, Docker, Git, GCP, AWS, Selenium, GitHub Actions, Grafana, NGINX