Eric Guo

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EDUCATION

University of Toronto

Toronto, ON

Bachelor of Science in Computer Science and Statistics

Sept. 2021 - Dec 2026

EXPERIENCE

RBC Borealis

Machine Learning Software Engineer

May 2025 – Present

Toronto, Ontario

- Built CI/CD pipelines in GitHub to deploy products to Kubernetes with Docker and scan images for vulnerabilities while optimizing layers to save 10GB in image space
- Built REST API with FastAPI/Starlette, and evaluate OAuth2.0 vs mTLS to serve embeddings in under 100ms on GCP
- Optimized API performance by load testing with Postman, scaling CPUs and streamlining response payloads
- Collaborated with ML researchers to develop Dagster pipelines streaming terabytes of client data to AWS S3 in Apache Arrow & Parquet, enabling efficient Postgres querying with DuckDB
- Trained ML models in **PyTorch** on data pipelines running monthly utilizing **parallel processing and compute** for efficiency, and **SLURM** for resource allocation

Network Automation

Apr 2024 – Aug 2024

NOKIA Corp.

Ottawa, Ontario

- Developed a YAML CI/CD pipeline in GitLab to run unit tests and deploy product to Kubernetes
- Achieved a 97% test coverage by employing a test-driven development (TDD) approach using the **PyTest** framework, unit-testing and Regex
- Migrated **Docker** deployment of a company product to **Kubernetes via Rancher** using **HELM charts**, saving the company significant time by optimizing container orchestration.

Network Automation

Apr 2023 – Aug 2023

NOKIA Corp.

Ottawa, ON

- Tested and troubleshooted Network Automation Platform (NAP) by simulating deployments in Linux VM
- Programmed a custom scripts using **Python** w/ **Pandas and Numpy** to handle client-specific configuration uploads, resulting in more streamlined and error-free automation
- Utilized Postman to test RESTful API functionality for uploading and retrieving configurations, ensuring seamless communication with MongoDB.

Software Engineer Intern

May 2022 - Aug 2022

LUCI.AI Inc.

Remote

- Migrated IoT data from MongoDB to PostgreSQL using Node.js, Mongoose, and Prisma for scalability, improving database efficiency by 30%
- Developed and tested **RESTful APIs** using **JavaScript and Postman**, validating API workflows and ensuring system reliability

PROJECTS

Scriptorium | UI, UX, Next.js, Node.js, Typescript, React, GitHub, Jest

Sept. 2024 – Jan. 2025

- Developed a code execution platform with **Next.js** and **TypeScript**, featuring multi-language support, syntax highlighting, and secure execution with **Docker containers**.
- Built and tested RESTful API endpoints with JWT authentication and validated workflows with Postman, ensuring proper functionality across multiple endpoints - documented using SwaggerUI
- Implemented responsive frontend (UI/UX) features for mobile and cross-browser users using **React.js**, **HTML**, **CSS**, **and Tailwind** and featured libraries. Deployed website to cloud using **AWS**

TECHNICAL SKILLS

Languages: Java, Python, C, SQL, JavaScript (React), HTML, CSS, JQuery, R, NoSQL, TypeScript, Bash

Frameworks: Next.js, PyTest, React.js, JUnit, Tailwind, Pandas, Jest, PyTorch, TensorFlow

Developer Tools: VSCode, Git, Docker, AWS, Windows, Linux, Unix, Kubernetes, Apache, HELM, GCP **Skills**: Cloud, Object-Oriented Programming, Machine Learning, Data Structures & Algorithms, DevOps