RAYAN AHMAD

✉ r29ahmad@uwaterloo.ca | 🔗 LinkedIn | 🐙 GitHub | 🌐 Portfolio

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Rust, Ruby, Golang, Java, C/C++, HTML, CSS, Bash
Frameworks: React, Express, NodeJS, Flask, FastAPI, Pandas, NumPy, Matplotlib, TensorFlow, Scikit-Learn
Technologies: AWS, GCP, Docker, Kubernetes, Nomad, Terraform, Linux, PostgreSQL, MongoDB, Git, Buildkite

WORK EXPERIENCE

Full-Stack Developer | Financial Modeling Prep　　　　　　　　　　　　　　　　　　　Jan 2024 - Apr 2024

- Spearheaded the creation of an **automated financial news writer**, leveraging real-time market data, news, and alerts to publish articles on market events and stock news for the FMP website, catering to **200,000+ customers**
- Engineered a robust full stack application utilizing **MERN stack, Next.js, Material UI, SCSS, Redux, Redis**, with **OpenAI and Assistant API** integrations for use by **3 large clients**
- Optimized **large language models (LLMs) from OpenAI** using techniques such as **fine-tuning, prompt engineering, and Retrieval-Augmented Generation (RAG)**, achieving a **90%** accuracy
- Implemented quantitative functions running on scheduled **cron jobs** to detect **stock-price changes** and **significant market events**, increasing the platform's responsiveness to market dynamics by **70%**

Software Engineer | Wonolo　　　　　　　　　　　　　　　　　　　　　　　　　　　May 2023 - Aug 2023

- Engineered an internal queuing tool that integrates with **Buildkite**, **GitHub**, and **Nomad**, enabling developers to deploy to production via **Slack**, enhancing the deployment CI process efficiency by **70%**
- Integrated a **NodeJS** application with **Bugsnag** and **N8N** to automate **workflows**, and **bug-tracking** to promptly notify developers, reducing response time by **90%**
- Developed a **Python CLI** tool to automate **Nomad** deployments, benefiting over **60** developers
- Optimized a **Homebrew formula** with **Ruby**, accelerating tool command execution by a factor of **5**

Software Engineer | WealthAgile　　　　　　　　　　　　　　　　　　　　　　　　Aug 2022 - Apr 2023

- Deployed AI system into production environment by designing a **microservice architecture** on **AWS** and **GCP**, using scalable services implemented in **Python**, for **300** active users
- Created **CI/CD** pipeline using **Git**, **GitHub Actions** (workflows), **Terraform**, **Docker**, **Kubernetes**, and **AWS** to automate testing, container registry management, and rollout in **EKS** reducing deployment time by **95%**
- Programmed **RESTful APIs** for **genetic algorithm** machine learning model, and crypto exchanges such as Kraken, Coinbase, & Binance using **MongoDB**, **FastAPI**, **Postman**, and used **binary search algorithm** to speed up code by a factor of **6**
- Built a **multi-threaded** data collector to collect cryptocurrency OHLCV time-series data from multiple data sources and stored it in **Postgres** to speed up collection by **15** times
- Developed multiple **quantitative trading** applications, re-balancing algorithms, back-testers to get performance and metrics such as Sharpe ratio, with best practices such as **documentation**, file structure, **unit and integration testing**, **logging**, and **test-driven development**, reducing development time by **60%**

Data Engineer | TealBook　　　　　　　　　　　　　　　　　　　　　　　　　　　Jan 2022 - Apr 2022

- Applied Bidirectional Encoder Representations from Transformers **(BERT)** model on supplier data to find eligible suppliers for a small business certification using **TensorFlow** to produce results up to **85%** accuracy
- Analyzed data issues, trends, and patterns in **Big Query**, using **SQL**, **Python**, **Pandas**, and **RegEx**

EDUCATION

University of Waterloo　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Grad 2026

- Candidate for Bachelor of Applied Science in Mechatronics Engineering
- Relevant Courses: Embedded Systems, Real Time Operating Systems, Data Structures and Algorithms, Introduction to Microprocessors and Digital Logic, Experimental Measurement and Statistical Analysis

Interests: Entrepreneurship, Investing, Skateboarding, Piano, Gym, Mixed Martial Arts, Card Tricks