Nathan Luong

Full Stack Developer/ AWS DevOps & Cloud Trainee

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EDUCATION

McMaster University, Hamilton, Ontario, Canada   September 2020 - May 2025
Bachelor of Engineering —Software Engineering Co-op   GPA: 3.5/4.0
Awards: Dean's Honor List, Honor Entrance Award
Relevant Courses: Data Structure, Algorithms, Object Oriented Programming, Databases, Large-scale Software Design.

WORK EXPERIENCE

Full-Stack Engineer Intern   May 2022 – December 2022
Jamlabs Data Science   Toronto, Ontario, Canada
- Designed, deployed, and maintained a **PostgreSQL** database on **AWS Aurora** to store collected trading data that facilitates daily PNL calculations, account management, and data reconciliation.
- Engineered a **Python Flask** service to collect and analyze trading information from 10+ cryptocurrency exchanges and over 20+ internal high-volume-traded accounts.
- Coordinated with lead **DevOps** engineer to integrate, and deploy the reporting service onto existing **AWS** cloud infrastructure, via **Terraform** and **AWS Cloud Formation**, running alongside 7 legacy services.
- Improved and automated **90%** of accountant's workflow on data collection and daily financial reporting.
- Developed, and shipped 10+ client-facing front-end features, under an **Agile environment**, using **React** and **Redux** based on approved UI/UX designs.
- Implemented 4 **Express REST** endpoints to enable image uploading and **CRUD operations** on existing **DynamoDB** and **AWS S3** clusters.
- Utilized **Jest** and **Husky** to build automated **git workflows** and **unit tests** for 3 **JavaScript** code-bases.

Backend Engineer Intern   May 2021 – August 2021
Opal LLC   Los Angeles, CA, United States
- Collaborated with 4 other engineering interns to research and develop a blockchain-based transaction processing system on the **XRP Ledger** to ensure efficient and secure **NFT** transfers.
- Engineered a backend system using **Python Django** allowing users to upload custom NFTs onto two decentralized storage applications: **Pinata Cloud** and **InterPlanetary File System**.
- Automated developers workflow via **GitHub Actions** ensuring code reliability across operating systems.

EXTRA-CURRICULUM & LEADERSHIP

Ground Controls Team Lead   May 2022 – Present
McMaster Rocketry Team   Hamilton, Ontario, Canada
- Led a team of **12 engineering student** peers, to deliver a communication solution using **real-time Lora (Long-Range) Radio telemetry**, and data visualization for team entry into **Launch Canada Competition**.
- Acted as **project manager** for Flight Control and Ground Control teams; responsible for managing a **budget of $15k+,** developing project timeline and execution plan to meet competition deadlines.

PROJECTS

Viz- Diagramming made easy | **React, Tailwind, Redux**
- Developed a tool providing DevOps, and Solution Architect teams the ability to visualize **AWS infrastructures**.
- **Skilled Applied**: Front-end Development, AWS Architecture

Personal Blog | **React, Next.JS, MySQL, AWS S3**
- Developed my personal portfolio to showcase my skills, projects and work experience.
- **Skilled Applied**: Full-Stack Development, Web Design, Relational Databases, Data Structures

SKILLS & OTHER

AWS: Cloud Watch, EC2, IAM, BOTO3, Javascript SDK, S3, Elastic Beanstalk, KMS, VPC,
DevOps: Jenkins, Docker, GitHub Actions, K8S, Terraform, Chef, Selenium, Maven
Cloud: Docker, Google Cloud Platform, GCP, AWS, CloudFormation, DataDog, Kubernetes
Languages: Python, Java, PostgreSQL, MySQL, DB2, JavaScript, TypeScript, HTML, CSS, R, C++, Verilog
Frameworks: React JS, Tailwind, Redux, Node.js, ExpressJS, NextJS, Flask, Django, FastAPI, Kafka, React Native, QML
Developer Tools: VS Code, Git, Github, IDE, Linux, Windows, WireShark, Jira, BitBucket, Confluence, MS Office Suite