Nathan Luong

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EDUCATION

McMaster University   Hamilton, ON
Bachelor of Engineering: Software Engineering Co-op   *2020 – 2025*
Relevant Courses: Data Structure, Algorithms, Object Oriented Programming, Databases, Large-scale Software Design

EXPERIENCE

Full-Stack Developer Intern   May 2022 – Dec 2022
Jamlabs Data Science   *Toronto, ON*
- Designed, deployed, and maintained a **PostgreSQL** database on **AWS Aurora** to store collected trading data that facilitates PNL calculations, account management, and data reconciliation.
- Engineered a **Python Flask** microservice to collect and analyze trading information from **10+** crypto-currency exchanges and over **20+** high-volume-traded accounts.
- Integrated and deployed the reporting service onto existing AWS cloud infrastructure via **Terraform** and **AWS Cloud Formation** runs alongside 7 legacy services.
- Improved and automated **80%** of accountant's workflow for data collection and daily financial reporting.
- Developed, optimized, and shipped **10+** client-facing front-end features using **React** and **Redux** based on approved UI/UX designs.
- Implemented, and deployed 4 **Express REST endpoints** to enable file uploads 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.

Back-end Developer 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.

EXTRACURRICULAR ACTIVITIES & LEADERSHIP

Ground Controls Team Lead   May 2019 – Present
McMaster Rocketry Team   *Hamilton, ON*
- Led a team of **12** engineering student peers, to deliver a communication solution using real-time **Lora** 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 budget of **$15k+**, developing project timeline and execution plan to meet competition deadlines.

PROJECTS

🔗 **Viz - AWS Diagramming made easy** | *React, Tailwind, Redux*   2022
- Developed a front-end tool provides ability to visualize, and export **AWS infrastructure diagram**.
- **Skilled Applied:** Frontend Development, AWS Overall Architecture

🔗 **Personal Blog** | *React, NextJS, MySQL*   2023
- Developed my personal portfolio to showcase my skills, projects and work experience
- **Skilled Applied:** Full Stack Development, Web Design, Relational Databases, Data Structures

KEY SKILLS

Languages: Python, Java, PostgreSQL, MySQL, DB2, JavaScript, TypeScript, HTML, CSS, R, C++, C
Frameworks: React, Tailwind, Redux, Node.js, ExpressJS, NextJS, Flask, Django, FastAPI, Kafka, React Native
Cloud: Docker, Kubernetes, Google Cloud Platform, AWS, Terraform, CloudFormation, DataDog
Developer Tools: Git, Github, Docker, IDE, Linux, Windows, WireShark, GitHub Actions
General Software: MS Office Suite, Jira, Shortcut, Confluence