

Nathan Luong

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EDUCATION

McMaster University

Hamilton, ON, Canada

Bachelor of Engineering, Software Engineering

WORK EXPERIENCE

Hypercare

Toronto, ON, Canada

Backend Engineer

May 2024 – Present

- Shipped a **full-stack feature** using **React**, **TypeScript**, **AWS Lambda**, and **DocumentDB**, enabling healthcare admins to provision virtual pagers and streamline **on-call paging process**; reducing manual pagers set-up process by **90%**.
- Developed cloud infrastructure management scripts using **Infrastructure as Code** tool (**AWS CDK** - Cloud Development Kit), to automate the provisioning of new AWS environments; reducing test infrastructure set-up process time by **87%**.
- Implemented **CI/CD pipeline**, using **Github Actions** and **CircleCI**, to automate testing and software-delivery on Hypercare's AWS Lambda infrastructure; reducing existing manual deployment process by **95%**.
- Maintained, and implemented new feature on production-grade **GraphQL API**, and **REST API**.

Software Engineer Intern

June 2023 – May 2024

- **Owned** the development, deployment, and operation of an event-driven application using **Lambda**, **SQS**, **DocumentDB**, **EventBridge** to efficiently handle **300,000+ ULM** (User Life-cycle Management) daily requests
- On-boarded **50,000+** users onto Hypercare by integrating hospital's active directory, via **workOS**, to automate the user on-boarding process; reducing manual user creation time by Hypercare team by **91%**
- Enhanced Hypercare's serverless infrastructure **cold-start performance by 75%** and accelerated the **deployment of new microservices by 80%** by utilizing of **AWS SAM** (Serverless Application Model).

Ericsson

Toronto, ON, Canada

DevOps Engineer Intern

May 2024 – August 2024

- Designed, and implemented integration testing framework, using **PyTest** and **Postman**, enabling quick validation of generative responses from internally trained **Large Language AI Model**.
- Enhanced existing **Verizon's CI/CD** pipeline with **Ansible**, **Kubernetes**, and **GitLabCI**, automating configuration management on live VMs; reducing existing process by **60%**.
- Designed and implemented data analytic & visualization dashboard, using **PowerBI** and **Scipy**; cutting-down manual data collection tasks by **80%**, enabling predictive analysis of software bugs to provide confidence metrics in future product launches for **Rogers**.

Jamlabs Data Science

Toronto, ON, Canada

Software Engineer Intern

May. 2022 – December 2022

- Designed, deployed, and maintained a **PostgreSQL** database instance on **AWS Aurora** to store collected trading data that facilitates daily PNL calculations, account management, and data reconciliation.
- Engineered a **Python Flask** microservice 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**.
- Shipped 10+ client-facing React features, allowing users to edit preferred payment methods under profile settings.
- Improved and **automated 90% of accountant's workflow** on data collection and daily financial reporting.

Opal LLC

Los Angeles, CA, United States

Software Engineer Intern

May 2021 – August 2021

- Developed a **Django REST API** service, enabling front-end application to create, and upload custom NFTs onto **decentralized storage systems** such as **Pinata Cloud** and **InterPlanetary File System (IPFS)**.
- Built an automated test pipeline using **GitHub Actions** to ensure code reliability across 4 **Linux distributions**.

TECHNICAL SKILLS

DevOps : Jenkins, Docker, GitHub Actions, K8S, Terraform, Chef, Selenium, Maven

Cloud: Amazon Web Services, Microsoft Azure, Datadog, Terraform, Cloud Formation, Kubernetes, Apache Kafka