Stephen Guo

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EDUCATION

University of Toronto **Toronto, ON**
Honours Bachelor of Science, Computer Science September 2019 - April 2024
cGPA: 3.57 / 4.0

EXPERIENCE

Leap Softwares **Toronto, ON**
Software Engineer October 2024 - Present

- Built secure, type-safe **GraphQL** endpoints and automated PDF/Excel reporting tools for a financial services management system, using **TypeScript**, **NestJS**, **PostgreSQL**, **TypeORM**, and **Redis**, ensuring reliable data delivery and improved financial decision-making
- Introduced **Azure** Monitor alerts and health checks integrated with Slack via **Terraform**, **Rust**, and websockets, cutting service downtime by **95%** and reducing on-call load for engineers
- Responded directly to customer support tickets, troubleshooting production issues and coordinating fixes across teammates, improving average resolution time from 1 hour to under **5 minutes** and ensuring a consistent positive customer experience.
- Migrated data from a legacy financial application with a non-normalized schema and redundant records to a modern platform, designing scripts that cleaned, and transformed **100,000+** rows with zero downtime or data loss
- Optimized core reporting features by analyzing **PostgreSQL** query plans and adding targeted indexes, cutting average response times from 2 seconds to under **400 milliseconds**

BlueCat Networks **Toronto, ON**
Software Engineer Co-op May 2021 - April 2022

- Deployed and configured **Kubernetes** clusters for our data platform on **AWS** using **Helm**, **Terraform**, **Terragrunt** and **GitLab CI**, to automate and scale production deployments, reducing errors and accelerating release cycles for Fortune 500 companies serving **100 million+** people worldwide
- Developed a **Python** query microservice using **SQL**, **Docker**, and **Apache Airflow**, to automate daily report generation from terabytes of DNS and advertising data, cutting report time to under **5 minutes**
- Wrote Kubernetes horizontal and vertical pod autoscalers to dynamically adjust resources, increasing max traffic by over **9 times** and improving service stability during spikes
- Built REST APIs, integration tests, and end-to-end tests for a **Java** codebase with **Gradle** and **Jenkins**, ensuring higher code quality and seamless deployment in CI/CD pipelines
- Configured **Prometheus** Alertmanager and **Grafana** dashboards for production monitoring, reducing alert response times by **85%** through improved error tracking and timely notifications
- Merged 7 pull requests for highly requested features for the open source Trino Helm chart on GitHub, enhancing database security and scalability features based on user feedback, leading to broader adoption and improved reliability

PROJECTS

GoRust Recipe Gallery GitHub

- Developed a fault-tolerant recipe sharing application featuring a responsive, modern UI styled with **Tailwind CSS**, leveraging **Rust** for the frontend and **Go** for the backend to deliver high performance and maintainable code
- Designed and implemented RESTful APIs, complemented by comprehensive end-to-end test coverage using **Playwright**, ensuring code reliability and enabling automated validation of complex user interactions.

TECHNICAL SKILLS

Languages: JavaScript/TypeScript, Python, Java, Go, Rust, C, Bash/Shell, SQL
Libraries/Frameworks: GraphQL, NestJS, TypeORM, Tailwind CSS, Jenkins, Jest, Svelte
Other: Kubernetes, Helm, Terraform, AWS, Azure, GitLab CI, Docker, Unix/Linux, Git, Vim