Jerry Deng

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Education

Carleton University | *Bachelor of Computer Science (Honours), 3.9/4.0 GPA*   **Sep 2020 - Aug 2023**
Relevant Coursework: Object-Oriented Software Engineering, Programming Paradigms, Database Management Systems, Web Applications, Neural Networks, Operating Systems, Design & Analysis of Algorithms

Skills

Languages: Python, Java, Javascript, Ruby, Golang, C/C++, Rust, Lua, HTML, CSS, SQL, Bash
Technologies: Flask, Node.js, MongoDB, Express, Spring, React.js, Rails, NGINX, REST, GraphQL, IP, DNS
Tools: Git, Agile, Postman, Heroku, Wireshark, Google Cloud Platform, Docker, Kubernetes, Terraform

Experience

Shopify | *Production Engineer Intern*   **Jan 2023 - Aug 2023**
- Developed L7 routing infrastructure with Google Kubernetes Engine, involving updating custom NGINX middleware written in Lua, managing TLS certificates, configuring firewall rules, **handling 20 million RPM**
- Built observability tooling with Prometheus metrics and integrated request latency dashboards with alerts
- Implemented automated memory deletion for Kubernetes controller in Golang, reducing resources used
- Upgraded Kubernetes cluster fleet in Terraform with custom developer tools, improving infrastructure security
- Led project on **reducing latency between two major services by 75%** using Kubernetes load testing

Shopify | *Backend Developer Intern*   **May 2022 - Dec 2022**
- Prepared project experiment to add a new server-driven section to the store screen of the Shop app, including developing Ruby data loader ingesting MySQL data into client-ready GraphQL APIs with Redis caching
- Integrated Elasticsearch templates adding a new sort option for products, **ingesting 2 million records**
- Added monitoring to key backend services with StatsD metrics and linked metrics to Datadog monitors
- Championed project deep-dive into improving store section performance, discovering extraneous logic and coordinated action items for the team, resulting in **10% average reduction in latency across all services**

Shopify | *Software Engineer Intern*   **May 2021 - Apr 2022**
- Designed and integrated report editing buttons into a data platform website combining all data sources, creating React components, **enabling archiving and locking reports for over 1000 developers and data scientists**
- Fixed CSS styling errors, resulting in correct links and improved flex layout for superior user experience
- Developed Ruby GraphQL APIs to allow authenticated users to access restricted functionalities and datasets
- Owned pages of a major data discovery website revamp, drafting Figma designs, creating React components, transforming GraphQL queries with Typescript, resulting in **improved UI navigation for over 4000 employees**

Shopify | *Dev Degree Intern*   **Sep 2020 - Apr 2021**
- Selected to join **Dev Degree**, working part-time at Shopify alongside computer science degree
- Completed 8-month training covering the fundamentals of Ruby, Rails, React, SQL, Git, Javascript, and Scrum

Nokia | *Future Tech Intern*   **Jul 2019 - Aug 2019**
- Developed production malware signatures with TCP/IP network analysis with Wireshark and bash scripting tools

Projects

Bird Classifier 🔗 | Python, Tensorflow, Flask
- Classifies bird images with convolutional neural networks

Multithreaded Web Server 🔗 | Rust, TCP
- Implements TCP listener with concurrency and memory safety written in Rust