# **Charles Zhang**

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#### **Education**

#### **University of Waterloo**

Sep 2017 - Apr 2022

Bachelor of Computer Science, Major GPA: 93%

#### **Skills**

**Languages:** Go, Python, JavaScript (ES6+), TypeScript, Ruby, C, C++ **Technologies:** Node.js, React, Rails, MongoDB, MySQL, Memcached

Infrastructure: Docker, Kubernetes, Terraform, Ansible, AWS, Google Cloud, Datadog

## **Work Experience**

Lyft Sep 2021 - Present

Software Engineer Intern, Privacy Engineering

San Francisco, CA

• Designing and implementing a service in **Python** to ensure data privacy compliance in Lyft's datastores.

Riot Games May 2021 - Aug 2021

Software Engineer Intern, Continuous Service Delivery

Los Angeles, CA

- Created **Terraform** modules to automatically provision **AWS EKS** clusters with **autoscaling** for Riot's build infrastructure, eliminating manual work and potential human error in each deployment.
- Composed Ansible playbooks and Kubernetes manifests to automatically migrate Jenkins build nodes from Docker Swarm to Kubernetes, improving service reliability and efficiency for 8000+ pipeline jobs.

**Shopify** May 2020 - Aug 2020

Production Engineer Intern, Mobile Tooling

Ottawa, ON

- Designed and built a tool using Ruby on Rails, MySQL, and Google Cloud Storage that enables mobile developers to load different app versions in seconds, boosting development efficiency by 20x.
- Improved metrics reporting and error logging in Shopify's **Mac mini infrastructure**, increasing visibility of usage data for MacOS images and iOS build errors in **CI pipelines**.

**Wish** Sep 2019 - Dec 2019

Software Engineer Intern, Product Payments

San Francisco, CA

- Implemented credit card CVV verification using Python and MongoDB, decreasing cart dropoff rate by 20% while preventing account takeover fraud for over 500 million users.
- Utilized **Amazon SQS** to improve a scheduled payment service by queueing and executing transaction updates asynchronously, speeding up its runtime by **50**%.

**League** Jan 2019 - Apr 2019

Full Stack Developer Intern, Integrations & Reporting

Toronto, ON

 Architected web services using Go and MongoDB to facilitate membership reporting for clients in multi-billion dollar companies, increasing efficiency for League's Customer Success Team.

ConsenSys May 2018 - Aug 2018

Full Stack Developer Intern, Sobol

Kitchener, ON

• Implemented web APIs and UI components using **Node.js**, **React**, and **MongoDB** to calculate a project's progress from its objectives, allowing clients to better manage their projects and goals.

### **Research Experience**

University of Waterloo, Undergraduate Research Assistant

Jan 2021 - Aug 2021

• Implemented algorithms using **Python** and **PyTorch** to remove backdoor attacks in neural networks.