

Yuanzhe Shi

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Experiences

StackAdapt Software Engineer

📅 Sep 2024 - Present

- Built core **CDP** infrastructure in **Go**, **Kubernetes**, **Kafka**, and **TiDB** for scalable customer data ingestion and activation.
- Built **Kafka** ingestor services in **Go** on **Kubernetes** that upsert into **TiDB** to power segmentation and analytics.
- Designed end-to-end **HubSpot** and **Snowflake** integrations covering profiles, events, lists, companies, custom properties, and associations; scaled pipelines to **3M** profiles and **90M** events monthly via bounded-batch concurrency.
- Improved ingestion reliability through graceful shutdowns, in-flight workload draining, and memory profiling; built operational tooling for **DLQ** inspection, database migrations, **pre-commit** hooks, and **GitHub Actions** CI.
- Built **Ops Agent**, an AI-powered incident-response assistant; introduced **SLO**-based alerting that cut noise by **80%**.

Roblox Software Engineer

📅 Jan 2023 - May 2023

- Worked in **Telemetry** team under Roblox **Observability**. Developed and deployed `grafana-chart-operator` v2, a service that generates **Grafana** dashboards with over 80 panels for all (≥ 2302) Roblox services in **Go** and **Jsonnet**.
- Removed ≥ 2600 redundant dashboards by synchronizing operators on different env to prevent overwriting.
- Developed `custom-selector-plugin` in **TypeScript**, a Grafana plugin enabling users to position variable selectors.
- Implemented **GitHub Actions** workflows for artifactory build and upload, testing, and deployment to production.
- Built a configuration-driven E2E testing environment, rewriting ≥ 1000 lines of tests in **Go** and **Jsonnet**.

Ford Pro Software Engineer

📅 Sep 2022 - Dec 2022

- Worked in Ford Pro **Tolls** team using Java **Spring boot** and **React** to bootstrap a service for tolls from scratch in weeks.
- Configured **PostgreSQL** with **Flyway** migration scripts and **JPA** ORM; deployed services on **Kubernetes** via Tekton.

Autonomic Software Engineer

📅 Jan 2022 - Apr 2022

- Worked in **Development and Deployment** team on DevOps and CI/CD using **Terraform**, **ArgoCD**, **Concourse**, **Tekton**.
- Delivered Bakery with **React** and **Go** to compare deployment status on different envs and clusters for ≥ 682 services.
- Built **Docker** images and **Helm** charts for multiple languages; created internal **Homebrew** taps for Python tooling.

eBay Software Engineer

📅 Sep 2020 - Apr 2021

- Worked in eBay **Cloud Console** team, delivering Cloud native experience with full-stack **React** and **Java**.
- Delivered `storage-management-console` to control OLAP/OLTP storage requests, and **Kubernetes** PVC life cycles.
- Delivered a dashboard for **Kubernetes** clusters and availability zones in 2 weeks, reducing payload size by **90%**.

Projects

Minet

- A networking tool that connects resources everywhere. Routes data across platforms, servers and computers securely.
- Implemented with **Websocket**. Used **yamux** for multiplexing, **Wails+React** for desktop, and **Prometheus** for metrics.

v-cloud

- A volumetric cloud render implemented in **C++** and **OpenGL**. Web version using **WebGL** and **threejs**.
- Implemented **ray marching** and Perlin-worley noise. Implemented real-time sun color and wind effects.

Education

Bachelor of Computer Science

Combinatorics & Optimization + Computational Mathematics

University of Waterloo 📅 2019 - 2024