Si Zengyu

Principal Software Engineer · Fullstack Developer

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Accomplished Principal Software Engineer and passionate Fullstack Developer with 7+ years of experience architecting, building, and scaling robust software solutions. Expertise in Go, TypeScript, microservices, cloud platforms (Azure, GCP, AWS), and DevOps practices. Proven ability to lead complex projects, enhance system reliability, optimize performance, and champion quality engineering practices. Seeking challenging roles to leverage technical leadership and full-stack skills.

EXPERIENCE

Principal Software Engineer · *SP Group*

Aug 2022 – Present

- Led the architectural redesign and migration of monolithic payment and billing systems (handling Credit Card via MPGS/AMEX, PayNow, GIRO) to event-driven microservices using Go and Kafka; designed and guided the team in implementing self-recovery mechanisms, improving system resilience.
- Developed and drove adoption of a React-based self-service admin portal, achieving a 70% reduction in operational alerts related to payment/billing issues and enhancing FinOps efficiency through successful stakeholder engagement.
- Developed and promoted company-wide Go libraries for logging, configuration, and tracing (DataDog), standardizing development practices and enabling targeted infrastructure cost optimizations on Azure by identifying service provisioning inefficiencies.
- Managed technical delivery for key initiatives including the EMA Demand Response project (PayNow payouts), a customer Loyalty Program, and the PowerGrid Digital Workforce Service automation project.
- Acted as QE Champion Lead, collaborating with Reliability Engineering and application teams to establish a Test Automation framework, define QA best practices, and organize workshops to drive adoption across teams.
- Co-founded an internal AI Task Force to boost engineering productivity by rolling out tools such as Claude Code and GitHub Copilot, setting up a shared prompt registry, contributing reusable prompts, and regularly sharing best practices on efficient AI-assisted development.

Backend Developer · *Tencent*

Jul 2021 – Aug 2022

- Revamped components of the complex legacy marketing system (C++, Go, PHP) behind PUBG Mobile and Apex Legends Mobile, introducing Jenkins-based CI to replace manual deployments and significantly improve build and deployment efficiency.
- Developed standardized PHP backend service boilerplates and automated CLI tools, reducing new service setup time and streamlining developer onboarding.
- Engineered a Go-based traffic replay system utilizing go-proxy and integrated with an in-house testing framework for automated stability validation and API stress testing, boosting deployment confidence.

Senior Fullstack Developer · *RYDE Technologies*

Jun 2018 – Jul 2021

- Delivered full-stack solutions for trip-sharing features, including real-time tracking using NodeJS, React, and WebSockets within an in-app web view.
- Architected and implemented a comprehensive analytics dashboard using React, NodeJS, MongoDB, and Uber Deck.GL for heatmaps and real-time visualizations, providing key insights for operational decisions.
- Spearheaded the migration of core modules (User, Trip, Geocoding) from a legacy monolith to independent Go microservices, enhancing system robustness, scalability, and deployment autonomy.
- Managed containerized application deployments on Google Kubernetes Engine (GKE) using Docker, optimizing cloud build pipelines and deployment processes.
- Integrated a third-party Bitcoin payment gateway, increasing application visibility.
- Simplified in-app web application integration with third-party payment apps using React + Redux.

Full Stack Developer · *Epicurio*

Jan 2018 – Jun 2018

- Developed Progressive Web Applications (PWA) for e-commerce and admin systems using React, Redux, and NodeJS.
- Leveraged Google Cloud Platform (GCP) and Firebase for hosting, authentication, database management, and crash reporting.
- Led the development of a cross-platform mobile app (iOS/Android) using React Native, featuring e-commerce, wine cellar management, and live chat.

EDUCATION

Nanyang Technological University (NTU), Singapore

Aug 2012 – Jan 2018

- Bachelor of Electrical and Electronic Engineering (Honours)
- Specialization: Software Engineering

SKILLS

Programming Languages	Go, TypeScript, PHP
Frontend	React, Redux, HTML5, CSS3
Backend	Microservices Architecture, REST APIs, WebSockets
Databases & Caching	MongoDB, MySQL, PostgreSQL, Redis, Elasticsearch
DevOps & Infrastructure	Kubernetes, Docker, Terraform, Jenkins, CI/CD, Git
Other Tools	Deck.GL

LANGUAGES

Fluent	English, Mandarin
Elementary	Japanese, French

Latest version: https://resume.herosizy.dev/resume.pdf · updated 2026-11-16