CHRIS SHEPHERD

SENIOR SYSTEMS ENGINEER ⦿ LONDON, UNITED KINGDOM ☎ +447929672636

DETAILS

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LINKS

LinkedIn

Twitter

Github

Portfolio

SKILLS

Software Engineering

Software Design

Technical Leadership

Distributed Systems

Software Monitoring & Observability

TECHNOLOGIES

Go

Java

PHP

JavaScript/TypeScript

Rust

Kubernetes

Kafka

PostrgreSQL

MongoDB

PROFILE

Senior Systems Engineer building large scale, highly-available and robust distributed systems. I have worked within software engineering for more than eight years, having successfully shipped a number of big projects, I am proficient in several programming languages. I have worked for both big-name companies, and fast paced, hyper-growth startups, spanning across many different industries, including finance, cybersecurity, and the public sector.

EMPLOYMENT HISTORY

Senior Systems Engineer at Cloudflare, London, UK
May 2021 — Present

Part of the Alerts & Audit Logs team, as a technical lead for Audit Logs, responsible for Cloudflare's notifications and audit logs products.

- Leading a team of engineers, taking projects from design phase to production, by designing, developing and maintaining high scale, event-driven distributed systems primarily in Go along with some TypeScript and Rust. Utilising Kubernetes, Kafka, PostgresSQL and Redis.
- Leading a multi-year initiative spanning multiple teams to automatically create audit logs based on Cloudflare API traffic. Currently producing around ~21k audit logs per second. This has improved audit log product coverage from around 60% to over 95%.
- Researched and developed optimisations to improve our less performant services, this increased max throughput from ~30req/s up to ~800k req/s.
- Introduced a standardised protobuf build pipeline using Buf allowing teams across Cloudflare to easily lint, build and detect breaking changes when generating protobufs.
- Lead an initiative to improve the resilience of our services by tracking common on-call alerts & incidents, I built automated fixes that reduced pages via PagerDuty by roughly 50%.

Senior Software Engineer at Curve, London, UK
January 2019 — May 2021

Curve is a fintech startup based in London. Building a platform to aggregate user's financial accounts to one smart debit card.

- Designing, developing and maintaining highly-available and robust distributed systems. Written in Go using gRPC, REST, GraphQL and RabbitMQ. Running on Kubernetes in AWS EKS. MongoDB and PostgresSQL used for storage.
- The technical lead to build a modular, back-end driven user onboarding system. Whilst leading the move of the entire user onboarding process from our legacy PHP monolith to Go microservices. This improved sign-up to 1st transaction rate by over 50% and allowed for easier A/B tests and experimentation.
- Also increased monthly active users by 40% by leading development of virtual Curve cards, which enabled us to release the Samsung Pay card.
- Successfully shipped other projects from design phase to production including Curve Cash and Curve Send.
- Mentoring junior engineers as well as new starters within Curve who wanted to get up to speed quickly in Go.

Developer at IBM, Leicester
October 2015 — January 2019

- Worked on projects for a number of large external clients mainly as a back-end developer. Writing server-side code in both microservice and monolithic architectures in Java 8 and Spring Boot, using Elasticsearch, RabbitMQ, PostgreSQL and Redis.
- Using various software development techniques such as Test Driven Development and a number of Agile methodologies.
- Responsibilities included maintaining production services, developing user stories, fixing defects and code reviewing.

🎓 EDUCATION

Computer Games Programming, De Montfort University, Leicester
September 2011 — June 2015

First Class BSc Hons

★ EXTRA-CURRICULAR ACTIVITIES

Conference Speaker

I have been a speaker at a number of technical conferences, focusing on various aspects in building distributed systems.

- Kafka Summit 2023, London - Intelligent, Automatic Restarts for Unhealthy Kafka Consumers on Kubernetes (recording)
- Gophercon Singapore 2023, Singapore - Go Concurrency Techniques for Self-Healing Applications (recording)
- Gophercon Europe 2024 Winter Edition, Athens - Building gRPC Microservices Effectively with Go (agenda)
- Bit Summit 2024, Hamburg - Building gRPC Microservices Effectively with Go (-agenda)

Technical Book Reviewer

I was a technical reviewer for the Domain-Driven Design with Golang book. This involved reviewing each chapter and the accompanying code examples, to ensure the content is accurate, whilst providing comments and suggestions.

Podcast Appearances

I have been a guest on a number of podcasts related to the Go programming language.

- go podcast(), "gRPC in Go" - Episode discussing gRPC, targeting engineers building systems with lots of microservices, providing strong contracts, improving communication and managing protobuf at large companies (episode).
- Go Time, "Migrating from PHP to Go" - Episode focused on my experiences from Curve and Cloudflare, where I shared my experience migrating from PHP to Go (episode).

Apps Shipped

I have released multiple apps to both the iOS and Android app stores in my spare time. These have all been fantasy football style mobile apps for users to compete against friends by predicting football scores. These have had total user counts of over 12,000. The latest was built for the 2023 Rugby World Cup.