# **Alex Rivers**

Senior Software Engineer | Tech Leader | Systems Architect

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#### SUMMARY

Versatile and results-driven **Senior Software Engineer** with 18+ years of experience designing, scaling, and optimizing high-impact software systems across startups and enterprise environments. Proven track record in leading cross-functional teams, building scalable cloud-native architectures, and mentoring engineering talent. Deep expertise in **distributed** systems, backend architecture, DevOps, and product-led development. Obsessed with clean code, performance, and system resilience.

#### Specialties:

Golang · Node.js · Rust · Python · Kubernetes · AWS · GCP · CI/CD · Microservices · Event-driven Systems · GraphQL · PostgreSQL · System Design · Observability · Mentoring · Agile/Scrum · DevEx

## 🧠 CORE TECH STACK

Languages - Golang, TypeScript, Python, Rust, Java Frameworks – React, NestJS, Express, FastAPI, gRPC Infrastructure – Docker, Kubernetes, Terraform, ArgoCD Cloud - AWS (Lambda, ECS, S3), GCP (Cloud Run, Pub/Sub), Firebase **Data** – PostgreSQL, Redis, Kafka, MongoDB, ElasticSearch **Tools** – GitHub Actions, Datadog, Prometheus, Grafana, New Relic **Testing** – Cypress, Jest, Go Test, Pytest Architecture - Domain-Driven Design, Event-Driven, Hexagonal, Monorepos

# 💼 EXPERIENCE

Principal Software Engineer

Atlassian · San Francisco, CA **2020 - Present** 

- Led architecture overhaul of Confluence backend from monolith to microservices (22 services), reducing latency by **38%** and increasing developer throughput by **60%**.
- Mentored 12+ engineers across multiple teams; launched internal "Tech Ladder" framework to support growth.
- Drove adoption of Rust-based service to handle document diffing at scale now powering over 10M+ daily documents.
- Partnered with Product to ship "Smart Templates" feature increased customer retention by 12%.
- Owned end-to-end observability stack and migrated from ELK to Datadog, reducing MTTR by 40%.

#### Senior Software Engineer / Tech Lead

**Shopify** · Remote **2014 – 2020** 

- Scaled backend systems during BFCM (Black Friday/Cyber Monday) from 100k to 1.4M concurrent users.
- Introduced GraphQL APIs to replace legacy REST endpoints, cutting payload sizes by 70%.
- Designed a real-time event bus using Kafka + Go + Redis Streams now used by 80% of Shopify apps.
- Launched "App Store Connect" handled \$1.2B+ in annualized revenue streams.
- Promoted to Tech Lead in 2017; led squad of 9 engineers through 4 production launches.

## Senior Backend Engineer

Zendesk · San Francisco, CA 2010 – 2014

- Built out customer analytics backend with Go + PostgreSQL + Redis, reducing query latency by 4x.
- Developed internal A/B testing tool still used by 6+ product teams.
- Actively contributed to the company-wide API gateway project.

## Software Engineer

# **Various Roles 2006 – 2010**

- Wrote Java microservices before they were cool.
- Contracted for financial, health tech, and early-stage startups.
- Survived legacy PHP and enjoyed every second of it (sorta).

## **© KEY PROJECTS**

- ML-Powered Auto-Tagging Engine At Atlassian, built a machine learning system (Go + Python + TensorFlow) to auto-tag documents with 94% accuracy.
- DevOps Zero-to-Hero Migration Migrated monolithic CI/CD at Shopify into fully containerized GitHub Actions + ArgoCD flow with zero downtime.
- Realtime Collaboration Layer Designed a CRDT-based collaborative editing tool handling 50k concurrent sessions used by Jira whiteboard teams.

# **EDUCATION**

**B.Sc. Computer Science** – University of Waterloo Graduated: 2006 | Specialization: Systems Programming, Databases

# CERTIFICATIONS & OPEN SOURCE

- AWS Certified Solutions Architect Pro
- GCP Cloud Developer Certified
- Contributor: OpenTelemetry, Golang, and a few npm packages
- Speaker: QCon SF, GopherCon, DevWeek

#### **RECOMMENDATIONS**

"Alex is that rare engineer who codes like a craftsman and thinks like a product manager." – CTO, Atlassian

"If you need a system built to scale, Alex is the person to call." – *Staff Engineer, Shopify*