


Yaqoob Ahmed

SRE / Platform Engineer — Distributed Systems · Cloud Infrastructure · Reliability Engineering

 Canada (Open to Remote / Relocation)

 work@yaqoobahmed.com

 github.com/yzahmed |  yaqoobahmed.com

PROFESSIONAL SUMMARY

SRE / Platform Engineer specializing in high-availability distributed systems, Kubernetes-based infrastructure, and reliability engineering across hybrid cloud environments (GCP, Oracle Cloud, Proxmox, Cloudflare Edge).

Designed and implemented production-grade self-healing systems with strong focus on automation, failure isolation, observability, and production incident reduction. Experienced in building event-driven architectures and infrastructure platforms with measurable improvements in system resilience, recovery time, and operational stability.

Core Stack: Go, Python, TypeScript, Kubernetes, Terraform, Ansible, Prometheus, Grafana, HashiCorp Vault

CORE SKILLS

Cloud & Infrastructure: Kubernetes (GKE, K3s), Google Cloud Platform, Oracle Cloud Infrastructure (OCI), Proxmox, Docker, Cloudflare Workers

SRE / DevOps: Production incident response concepts, SLO/SLA design, error budgets, chaos engineering, capacity planning, GitOps, CI/CD (GitHub Actions), HAProxy, NGINX, reliability engineering practices

Backend Systems: Go (Gin), Python, Node.js / TypeScript, REST APIs, microservices, event-driven systems (Kafka)

Data & Messaging: MySQL (GTID replication), MongoDB, SQLite / Cloudflare D1, Apache Kafka, Cloudflare KV

Security & Networking: HashiCorp Vault, WireGuard, OAuth 2.0 PKCE, JWT, TLS/X.509, AES, ECDSA, HMAC-SHA256

Tools: Linux, Bash, Git, Prometheus, Grafana, Wireshark, mitmproxy, Firebase, Stripe

PROJECTS / SYSTEMS ENGINEERING EXPERIENCE

Hybrid Cloud SRE Platform — Self-Healing Distributed System

2024 – Present

Go · Python · Kubernetes · MySQL · Vault · Prometheus · Grafana · Terraform · Ansible

- Designed automated MySQL failover system achieving **<10s recovery time**, eliminating manual intervention during database failures
 - Built SLO-driven observability system maintaining **99.9% availability** across distributed services
 - Implemented real-time error budget tracking (latency, error rate, throughput) using Prometheus + Grafana
 - Reduced **MTTR by ~70%** via separation of control plane (decision logic) and execution plane (Kubernetes operations)
 - Built Kafka-based event-driven architecture to prevent cascading service failures under load
 - Implemented Vault dynamic secrets with zero hardcoded credentials and automatic lease renewal
 - Deployed hybrid infrastructure across Proxmox and GKE using Terraform and Ansible
 - Conducted chaos engineering experiments (database failure, latency injection, secret isolation testing)
-

Edge Orchestration & Secure Distributed Compute Platform

2024 – 2025

Node.js · GitHub Actions · Raspberry Pi · WireGuard · Bash

- Built distributed edge compute system using GitHub Actions as control plane and Raspberry Pi nodes as stateless executors
 - Designed WireGuard mesh network enabling secure communication across cloud and on-prem systems
 - Enabled distributed automation workflows for reliability testing and infrastructure orchestration
-

Cloudflare Edge SaaS Platform (Serverless Distributed System)

2024 – 2025

TypeScript · Cloudflare Workers · KV · D1 · Stripe · Firebase Auth · CI/CD

- Architected 6-service serverless platform (API gateway, auth, billing, telemetry, config, signing)
- Designed KV-first architecture removing database dependency from critical path (near-zero latency execution)

- Implemented Firebase JWT auth, OAuth flows, and per-IP rate limiting (30 req/min)
 - Built CI/CD pipeline deploying directly to edge infrastructure via GitHub Actions
 - Integrated Stripe billing system with secure webhook validation
-

High-Performance Backend & Cryptographic Systems

2024

Go · Docker · Nginx · Cryptography (AES, HMAC, ECDSA, PBKDF2)

- Built high-performance Go microservices with cryptographic parity vs C# reference implementation (2,000+ test vectors)
 - Designed deterministic device profiling engine achieving **2M+ ops/sec throughput** using HKDF-SHA256 + AES-CTR DRBG
 - Implemented secure authentication using OAuth 2.0 PKCE and device attestation
 - Containerized production services with hardened Nginx and TLS enforcement
-

ADDITIONAL EXPERIENCE

- Provisioned cloud infrastructure on GCP and Oracle Cloud (networking, firewall rules, production deployment)
 - Implemented TLS validation pipelines (OCSP, CRL, Certificate Transparency, RFC 5280 compliance)
 - Reverse-engineered Android (.apk) and .NET binaries for authentication and API analysis
 - Performed HTTPS traffic analysis using mitmproxy for OAuth flows and protocol debugging
-

EDUCATION

MBA — Business Administration

University of the West of Scotland (UWS), United Kingdom

MA — International Relations

BA — Political Science

Diploma — Web Development

Humber College, Toronto, ON

Full-Stack Web Development Bootcamp

University of Toronto

PROGRAMMING LANGUAGES

Go · Python · TypeScript · JavaScript · Dart · C# (.NET) · PHP · Bash · SQL

CORE PLATFORM & SRE COMPETENCIES

Production Incident Response · On-call Concepts · Postmortems · SLO/SLA Ownership · Error Budgets · Capacity Planning · System Reliability · Failure Isolation · Observability · Distributed Systems · Chaos Engineering · Automation-first Infrastructure