

MOHAMMED HUZAIF FAHAD

Go Backend Engineer | Founder | Cloud Infrastructure

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Summary

Go Backend Engineer with four years at Codewave, focused on distributed systems and cloud infrastructure (KVM, Linux, high availability). For the last two years I have built the control plane of the Hosted AI IaaS platform, where I led the MariaDB-to-DQLite migration and built automated storage repair and failover. 300 merged pull requests and 200 code reviews. Production and billing owner for a GPU-cloud platform, and founding engineer of OutRoute (Go, Flutter).

Technical Skills

Languages: Go, Python, Bash, SQL, TypeScript, Dart

Backend & Frameworks: REST APIs, OpenAPI, net/http, chi, gorilla/mux, GORM, sqlc, JWT, Keycloak, RBAC, WebSockets, SSE

Databases: PostgreSQL, MariaDB, MySQL, SQLite, DQLite, Redis

Infra & Tools: Linux, systemd, KVM, libvirt, cloud-init, LVM, MD RAID, etcd, Raft, Prometheus, Docker, Debian packaging

Testing & Tooling: Go testing, table-driven tests, httptest, testify, integration tests, Vitest, Git, Make

Frontend & Mobile: Flutter, Bloc, Firebase, TestFlight, Google Play

Professional Experience

Software Developer, Codewave, Bengaluru, India

Oct 2022 - Present

Hosted AI (hosted.ai), IaaS and GPU-cloud platform, Go control plane

Sep 2024 - Present

- Designed the Go orchestration layer for storage redundancy over the node-level MD RAID daemon: replica planning, health states with live rebuild progress, and a repair scheduler that recovers failed replicas and fenced disks automatically.
- Led the MariaDB-to-DQLite (Raft-replicated SQLite) migration after a proof of concept covering quorum loss and failover (leader re-elected in 1-5 s, no data loss); shipped the per-node daemon and data import tool.
- Built control-plane high availability (HA) with etcd leader election, quorum-guarded DQLite membership, config-drift repair and a leader-announce daemon, so losing the primary node needs no manual recovery.
- Led Go development of multi-node KVM (Kernel-based Virtual Machine) clustering: remote storage-node layer, cluster migration API, and a Cobra node CLI with transactional adds and removal guardrails.
- Refactored KVM instance creation into validate, place, provision and spawn stages with cleanup on partial failure; wrote Linux and Windows cloud-init templates that fixed Ubuntu 24 and Windows guest provisioning.
- Migrated VM metrics from RRD files to Prometheus, added Furiosa NPU (neural processing unit) support, removed pool-subscription race conditions with ordered keyed locks, and built the user panel's role-based access control (RBAC) and API-key auth.

GPU-cloud platform built on Hosted AI, Go and React, production and billing owner

Jun 2026 - Present

- Own production stability and billing correctness; replaced an unsafe automated pod-removal path with a held-by-default kill switch, operator approval queue and audit trail.
- Rolled out an email-keyed customer identity model behind a feature flag, with shadow-mode checks and instant rollback.
- Corrected billing and revenue-reporting logic: storage left unbilled by divergent pricing stores, and pooled revenue counted per node.
- Closed a tenant-isolation gap in credential handling, failing closed when ownership cannot be verified.
- Ported billing cron jobs and the admin console to the Go backend with full test parity; added a context-aware slog handler for request IDs.

Founding Engineer, OutRoute (outroute.co.in), travel and experiences app

Mar 2026 - Present

- Build and run the Go API as sole engineer: standard library net/http (132 routes), PostgreSQL, Redis, WebSocket chat, LLM itineraries streamed over SSE, Firebase sign-in exchanged for RS256 JWTs; 113 test files; Docker Compose and Caddy.
- Build the Flutter app (13 feature modules, Bloc/Cubit) with dev, beta and prod flavours, shipped to TestFlight and Google Play internal testing, plus the React admin console.

Projects

- Rotimatic** (Codewave, Flutter): led Bluetooth Low Energy (BLE) and socket control logic for a connected cooking appliance, cutting connection failures by 60% and migrating the app to a new stack.
- India1** (Codewave, Flutter): owned stability, analytics and crash reporting for an app that passed 100K downloads in three months.
- Mintmoves** (mintmoves.life): drove the proof of concept and led wearable sync from Health Connect, HealthKit and Google Fit.
- CodeScout** (codescout.tech), open-source logging tool for Flutter: contributed a merged fix to log search.

Education

Bachelor of Computer Applications (Distance), Manipal University Jaipur, India

2022 - 2025

Awards: Most Promising Entrant Award at Codewave (youngest recipient); MVP recognition on several client projects.