

Kaushik R Banger

Senior Backend Engineer | Distributed Systems | Real-Time Systems | AWS

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EXPERIENCE

Jumbo — New Delhi

Senior Backend Engineer (Founding Engineer) | Aug 2024 – Present

- Scaled the gaming platform from ~15K to ~700K requests/min for ~100K+ MAU (80K+ weekly active), reliably handling **INR 5 Cr peak payment** throughput and **30 Cr+ in-game transaction** volume.
- Rewrote the **core transaction service in Go + gRPC** (latency from ~150 ms to ~50 ms) with **atomicity, idempotency, running balances**, and a **multi-currency ledger** with **liability tracking** and automated **clawback reconciliation**.
- Built a **vendor-agnostic event pipeline**: one typed event is batched, streamed via **Redis**, and **fanned out to multiple analytics vendors** (CleverTap, PostHog, Matomo) while persisted **first-party in ClickHouse**, removing third-party lock-in.
- Owned the end-to-end **system architecture** for the in-house fantasy platform — **service boundaries, database schema, and API contracts**.
- Reduced backend load and CDN cost by ~40–50% by moving low-change/high-read APIs **behind a CDN** with correct **cache-control** (cached at the Cloudflare edge and on-device).
- Delivered an **async recharge + KYC orchestration layer** using a vendor-agnostic **Adapter Pattern**, cutting third-party dependency cost by ~70% via caching and retries.
- Built centralized **logging + trace correlation** (ClickHouse + Redis, **Node.js async_hooks**) and drove **API/DB load testing** (Locust, Percona) to cut MTTR and tail latency.
- Reclaimed ~30% of **database storage** using **pg_repack** to rebuild bloated tables, reindex, and clear dead tuples, improving cache efficiency and query performance.
- Hardened security with **IAM Identity Center RBAC**, **Tailscale** least-privilege access, **zero-downtime JWT key rotation** (kid-based, no forced logout), and **OTP-abuse prevention**.
- Built an **Aviator real-time game** from scratch on a **WebSocket platform (API Gateway + Redis)**, scaling 0 → ~1,000 CCU with stable gameplay loops.

Juego Studios — Mangalore

Software Engineer (Backend / Cloud) | Aug 2021 – Jan 2024

- Built a resilient **AWS ingestion platform** using **Kinesis**, cutting projected infrastructure cost **\$1,200 → \$400/mo** (~66%).
- Delivered analytics pipelines using **AWS Glue ETL (PySpark) + Glue Catalog + Athena**, converting raw data to columnar **Parquet** to cut storage and reduce query latency from ~7s → 1–2s.
- Improved database scalability via **Aurora MySQL tuning, SQL transactions**, indexing, and **Redis caching**, achieving ~1,000 CCU and 1,000 RPS.
- Deployed **multiplayer game servers on Kubernetes** (Agones PoC for dedicated-server scaling), provisioned via **Terraform (IaC)**.
- Engineered server-side **game-loop infrastructure** — a room/bucket system for idle/timed-out rooms — with **match-filling bots** to sustain gameplay at low player counts.
- Implemented **M2M and JWT access/refresh** auth, plus **Metamask/Keplr** wallet authentication for Web3 features.

SUMMARY

Senior backend engineer with **4.5+ years** building **high-scale, real-time** gaming systems and **cloud-native** infrastructure on **AWS**. Proven in scaling traffic to ~700K req/min, designing fault-tolerant event pipelines, improving payments correctness, and driving reliability through **strong observability and incident ownership**. Strong in **system design** and **performance optimization**.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, SQL, Go

Backend: Node.js, REST, WebSockets, gRPC, Microservices, Distributed Systems, System Design, Event-driven Systems, CDC (Logical Replication), ETL

Databases: PostgreSQL (RDS/Aurora), MySQL (Aurora), ClickHouse, MongoDB, Redis

AWS: Lambda, EC2, EKS, S3, API Gateway, Kinesis, Firehose, Step Functions, Glue, Athena, SQS, Cognito, CloudWatch, Personalize

DevOps & Tools: Docker, Kubernetes, Terraform (IaC), NGINX, Git, Airflow, CI/CD, Datadog, Locust, Percona, Tailscale

PERSONAL PROJECTS

ctx-router — transport-agnostic API router; write handlers once and run them across HTTP, Lambda, SQS, and gRPC through one ctx pipeline, keeping transport concerns at the boundaries. *TypeScript · npm*

ketsoc — geographically distributed WebSocket layer built on **Cloudflare Durable Objects** with hibernation for low-cost, stateful connections at the edge. *TypeScript*

homing-trade — paper-trading lab for crypto futures: multi-strategy tournament, backtester, RL/AI strategies (Q-learning + Bull/Bear/Risk committee), daily risk controls + kill switch. *Python*

EDUCATION

Srinivas Institute of Technology

Mangalore

B.E. Computer Science Engineering (2021)