GOKUL JINU

Backend/Platform & Frontend Engineer • Secure, observable systems end-to-end
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SUMMARY

Full-stack infrastructure engineer who designs and ships secure, observable services and the UIs that run them. Comfortable across Go/Java/Python and TypeScript/React; REST/gRPC; Mongo/Redis/MinIO; Dockerised execution; and practical security. Bias for clear specs, deterministic behaviour, and reproducible results.

CORE SKILLS

Languages & Frameworks: Go, Java · Spring Boot, Python · FastAPI, TypeScript, React · Next.js

APIs & RPC: REST, gRPC · HTTP/2, OpenAPI, Pagination & Error Schemas

Data & Storage: MongoDB (compound/TTL), Redis (caching/Lua), MinIO · S3

Runtime & Containers: Docker/Compose, Capabilities · basic seccomp, Signed callbacks

Reliability & Observability: Timeouts · Retries · Backoff, Rate limits · Circuit breakers, Prometheus · Grafana, Jaeger tracing, Histograms · p50/p95

Security: JWT · API keys, TLS at ingress, CORS & input validation, Command allowlists

EXPERIENCE

Founder & Backend/Platform Engineer — Rail Tech Inc.

Toronto · Feb 2025 – Present

- Designed and built a secure agent-execution runtime across microservices (Go/Java/Python/TypeScript) with containerised task runners and signed HTTP callbacks.
- Delivered a tag-based memory layer: bounded graph retrieval, deterministic pack assembly, token budgeting, and duplicate/diversity controls.
- Implemented a runtime security layer: rulepack input scanning, command allowlists, resource caps (CPU/memory/output), audit trails.
- Shipped Spring Boot agent-service (MinIO artifacts, Mongo metadata) and a Next.js management dashboard.

- Added observability (Prometheus/Grafana/Jaeger), reliability patterns (timeouts/retries, rate limits, circuit breakers), and API hygiene (CORS, input size limits).

Selected Projects

- MME — Memory Engine (Core + HTTP): data model for tags/edges/blocks; bounded BFS/beam (K,D) with stable tie-breakers; budget-aware selection; diversity guard (ID/hash + Jaccard or submodular gain); bench harness with commit/env headers.
- MSE — Security Engine: YAML rulepacks; input validation & output truncation; command allowlists; resource limits; audit trail with reasons.
- Exec Runner & Execution Service: gRPC exec requests; HTTP callbacks; Docker isolation; MinIO artifact retrieval; Mongo persistence; idempotent callback handling.
- Agent Dashboard (Next.js): auth flows; agent management; memory/security views; lightweight monitoring widgets.

EDUCATION & ACHIEVEMENTS

George Brown College — T177 Program

Coursework: programming fundamentals, web dev, databases, OS concepts.

- Ongoing self-study: algorithms & data structures, distributed systems, IR/graph retrieval, and security engineering.

Highlights

- Italia360 incubation (2025).
- Technical alignment/experimentation with partner orchestration platform (under NDA).
- Whitepaper draft on tag-graph memory retrieval and explainability.

LINKS

Portfolio: https://gokuljinu.vercel.app

Product: https://aistore.live

LinkedIn: https://linkedin.com/in/gokuljinu

GitHub: https://github.com/gokulJinu01