Jefri Maruli Harianja

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Contractor (USD invoicing) or through your EOR • Overlap: APAC full day, EU 15:00 to 19:00 WIB, US Eastern 20:00 to 01:00 WIB

SUMMARY

Senior Back-End Engineer with 6 years building real-time and regulated systems in NestJS/TypeScript and Go. Built and ran the backend of an ICU monitoring platform: medical device telemetry ingestion, TimescaleDB vitals storage, and live WebSocket feeds. Builds LLM tool-calling agents tested with eval harnesses, and has a merged security fix in an open-source AI agent platform. Earlier work: Web3 gaming (Go/gRPC, Rust), digital banking, government services.

WORK EXPERIENCE

Senior Back-End Developer

Dalfin Healthcare • Bekasi, West Java
February 2025 – October 2026
Stack: TypeScript, Node.js, NestJS, PostgreSQL, TimescaleDB, Prisma, Redis, BullMQ, Docker

- Built the medical device webhook receiver for ICU telemetry: a transactional inbox claimed with FOR UPDATE SKIP LOCKED, retry with backoff, and idempotent alarm deduplication, writing per-minute patient vitals into TimescaleDB.
- Built a WebSocket gateway pushing live vitals and alarms per bed, plus per-device OFF/SHADOW/PRIMARY routing so hospitals can move off the legacy telemetry service without downtime.
- Designed centralized OAuth 2.0 authentication for the platform's microservices, with JWKS-based JWT key rotation.
- Built RBAC and contract management that limits hospital access to the Stenella ICU dashboard by contract and payment status, and defined API contracts across platform, integration, and admin services.
- Built an intraoperative monitoring service (NestJS, Prisma) with a live WebSocket API and BullMQ-based PDF reports.
- Worked on the SATUSEHAT (national HL7 FHIR platform) integration: auth client, rate limiting, proxy support.
- Added a GitHub Actions PR gate at 85% Jest coverage; wrote about 310 of the service's 349 test suites.
- Provisioned Grafana alerts and Loki logging as code; ran PgBouncer with TimescaleDB on PostgreSQL 17.

Back-End Engineer

Not Boring Company Pte. Ltd (NBC) • Contract • Remote (Singapore)
August 2025 – July 2026
Stack: Go, gRPC, Protocol Buffers, Rust, Tokio, PostgreSQL, Redis, TypeScript

- Designed and built the Go microservices behind meow-quest-backend, a real-time multiplayer game, using gRPC.
- Built Rust automation bots (Tokio, SQLx) that manage wallets with secp256k1 keys and BIP39/BIP32 derivation.
- Added Redis caching for high-frequency player transactions to cut database reads during peak gameplay.

Full Stack Engineer

Melkhior Teknologi • Bandung, West Java
January 2024 – December 2024
Stack: Laravel, CodeIgniter, NestJS, Next.js

- Moved the Ximpli-Me platform from a Laravel monolith to NestJS microservices (API gateway, e-form generator), covering role management, workflow, and e-form modules on both sides of the migration.
- Shipped the FBM-TV (banner/video publishing) and Recon-TV (reconciliation) modules for CIMB Niaga Bank's Digital Banking Support System, with server-side datatables and query tuning.
- Wrote 30+ pages of API documentation (Docusaurus) and a developer portal with API key management for integrators.

Back-End Developer

Kementerian PUPR • Jakarta
August 2020 – December 2023
Stack: PHP, CodeIgniter, MySQL

- Designed and maintained REST APIs for SIMBG, the national building permit system, integrated with OSS licensing.
- Automated data synchronization with OSS, cutting manual processing time by 25%.
- Tuned MySQL queries and connection pooling to absorb a 40% traffic increase on the existing infrastructure.

OPEN SOURCE AND AI ENGINEERING

- **nakama** (open-source AI agent platform, about 500 GitHub stars): 5 merged PRs. Closed a remote code execution hole in custom tools: handlers run in a subprocess with an environment allowlist, so provider API keys never reach tool code.
- **inquiry-triage** (TypeScript, Claude API): contact-form classifier in production on tengubyte.io. Forced tool call for structured JSON, schema validation, 8-second timeout with fail-open fallback, zero runtime dependencies.
- **voice-agent** (Rust, personal project): voice-controlled desktop agent, LLM tool-calling loop over 10 native tools. 14/14 eval pass at 2.8 s median; 53-case replay regression suite, each case must pass 3 runs in a row.

SKILLS

- **Languages:** TypeScript, JavaScript (Node.js), Go, Rust, PHP, Python
- **AI/LLM:** Tool calling, agents, RAG, evals (LLM-as-judge, regression replay), MCP servers, Claude API, Claude Code
- **Backend Frameworks:** NestJS, Express.js, gRPC, Protocol Buffers, Prisma, Laravel, CodeIgniter
- **Databases:** PostgreSQL, TimescaleDB, MySQL, MongoDB, Redis, PgBouncer
- **Messaging and Realtime:** RabbitMQ, BullMQ, WebSockets, webhooks with transactional inbox
- **Infrastructure:** Docker, GitHub Actions CI/CD, Grafana, Loki, AWS
- **Frontend:** React.js, Next.js, Tailwind

EDUCATION AND CERTIFICATIONS

- **Computer Software Engineering**, STMIK Mardira Indonesia, Bandung (2019)
- AWS re/Start Graduate (2026) | Meta Back-End Developer (Coursera) | Back-End APIs (freeCodeCamp)