Rega Halma Ruzty

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SUMMARY

Senior Backend Engineer and **former Engineering Lead** with **9+ years of experience** building production systems across fintech, banking, healthcare, and enterprise platforms. Specialized in **backend architecture, Node.js, TypeScript, distributed systems, and database optimization**. Experienced in leading greenfield product development, designing reliable financial integrations, and delivering scalable, secure systems with a strong focus on system reliability, data integrity, and AI-assisted engineering.

EXPERIENCE

Littlelives Singapore. Remote from Bandung
Senior Backend Engineer Jan 2025 - Present

- **Architected** complex backend features and configurable multi-tenant workflows using **Node.js, NestJS, TypeScript, TypeORM, and PostgreSQL**, translating product requirements into **technical designs, database changes, and safe rollout strategies**.
- **Engineered** scalable **PostgreSQL** schemas and optimized queries using appropriate indexing, constraints, and data integrity controls to support reliable multi-tenant operations.
- **Implemented** distributed coordination and caching mechanisms using **Redis**, alongside asynchronous background processing with **NSQ** retries to improve workflow reliability and handle transient failures.
- **Developed** financial integration APIs incorporating **idempotency**, **validation**, **retry mechanisms, and reconciliation** to prevent duplicate charges and maintain transaction consistency.
- **Streamlined** operational support by building internal **Retool** administration tools that enabled Customer Success to investigate customer issues, manage users, and retry failed processes independently.

Key Achievements

- **Reduced PostgreSQL query execution time to under 100 ms**, replacing a costly multi-table join with a CTE-based approach to resolve a previously timing-out query.
- **Maintained 100% data integrity** across mission-critical production database migrations through parallel-run validation and controlled migration procedures.
- **Delivered DBS and OCBC Bank GIRO integrations**, supporting reliable financial collection and refund workflows while enabling configurable financial processes and zero-downtime releases across tenants.

Grof Singapore. Remote from Bandung
Engineering Lead October 2021 - January 2025

- **Architected** and led the development of a corporate card platform from an empty repository to production within 12 months, selecting a domain-oriented modular monolith architecture using **React, Next.js, Node.js, TypeScript, MongoDB, Docker, and AWS**.
- **Designed** secure multi-tenant backend architecture by implementing tenant-aware authentication and server-side authorization, enforcing customer data isolation and access boundaries.
- **Led** full-stack engineering and infrastructure development across web applications, backend services, mobile capabilities, and production environments to support end-to-end product delivery.
- **Established** automated CI/CD pipelines using GitHub Actions, implementing build and test automation to streamline application delivery and eliminate manual deployment processes.
- **Mentored** engineers and collaborated with product, operations, and business stakeholders to translate customer requirements into technical solutions and deliver reliable financial workflows.

Key Achievements

- **Scaled the engineering team to 10 members** through technical mentoring, knowledge sharing, and team development.
- **Onboarded more than 100 enterprise SMEs** onto the corporate card platform, supporting business adoption and product growth.
- **Eliminated manual deployments** by establishing automated CI/CD workflows using GitHub Actions.

Bithealth Jakarta. Remote from Bandung
Full-Stack Developer June 2021 - September 2021

- **Developed** healthcare web applications for clinical staff, supporting operational workflows and improving access to application functionality.
- **Designed** API contracts and integration interfaces to connect the web application with existing hospital platform services.
- **Investigated** production issues across application services, performing hands-on debugging and troubleshooting to identify root causes and support timely issue resolution.

Multipolar Technology Jakarta. Remote from Bandung
Full-Stack Developer | Squad Lead January 2019 - June 2021

- **Architected** and led backend development of VisionDG, a multi-service mobile banking platform, organizing independently running modules for customer management, administration, video calls, core banking integration, and customer onboarding.
- **Developed** customer management and administration modules using FeathersJS, implementing REST APIs and WebSocket connections to support mobile banking applications and React.js dashboards with real-time updates.
- **Integrated** Jitsi Meet to deliver video-call capabilities, connecting customer information across platform modules to support video-based customer verification workflows.

- **Engineered** core banking integration services using ISO 8583, enabling customer management workflows to create and maintain customer records and retrieve banking transaction data.
- **Built** customer onboarding and KYC functionality using Kotlin, integrating third-party identity verification providers and publishing events through Kafka for consumption by other service modules.

Key Achievements

- **Delivered a white-label mobile banking platform for two enterprise banks**, supporting secure and configurable banking services.
- **Contributed to Bank Mandiri's Test Lifecycle Custom Application**, developing vendor onboarding, QA ticket tracking, and document management functionality used by hundreds of bank QA personnel.

Tabel Data Indonesia Bandung
Full-Stack Developer November 2017 - November 2018

- **Engineered** Java 1.7 implementations of IBM DB2-based Power BI query logic, translating existing database logic into application-level processing to support enterprise banking batch operations.
- **Developed** a testing support application to streamline QA workflows, improve test coverage, and support operational reliability.

Key Achievements

- **Supported the release of a multithreaded bank clearing batch process** by successfully porting IBM DB2-based Power BI query logic to Java 1.7.

Charoen Pokphand Subang
Operations Supervisor June 2014 - November 2017

- **Supervised** daily production operations and on-site teams, coordinating activities to maintain productivity and meet production targets.
- **Optimized** production workflows by identifying operational inefficiencies and implementing process improvements.
- **Analyzed** operational metrics and developed Excel-based reports to support performance monitoring and management decisions.

Key Achievements

- **Improved overall production yields** through data-driven analysis, identification of operational inefficiencies, and optimization of team workflows.

EDUCATION

Animal Husbandry, Padjadjaran University
Bachelor Degree 2008 - 2014

CERTIFICATIONS

MongoDB Certified DBA Associate (C100DBA) 2020
MongoDB Certified Developer, Associate (C100DEV) 2020

SKILLS

Technical Skills:

- **Backend Engineering**: Node.js, NestJS, Express, TypeORM, REST APIs, API contracts, third-party integrations
- **Frontend**: React, TypeScript, Next.js, React Native, Vue.js, responsive interfaces.
- **Database & Data Management**: PostgreSQL, MongoDB, Redis, Database Schema Design, Query Optimization, Database Indexing, Data Integrity, Production Migrations.
- **Distributed Systems & Transaction Processing**: Microservices Integration, Distributed Locking, Asynchronous Processing, NSQ, Idempotency, Retry Mechanisms, Reconciliation, Duplicate Transaction Prevention.
- **Architecture & System Reliability:** Modular Monolith Architecture, System Design, Backend Architecture, Multi-tenant Architecture, Production Troubleshooting, Zero-downtime Deployment, Incident Investigation.
- **Observability & Monitoring**: AWS CloudWatch, Grafana, Application Logging, Metrics Monitoring, Dashboards, Slack-based Alerting
- **Backend Security**: Authentication, Authorization, Role-Based Access Control (RBAC), Tenant-aware Authorization, Server-side Access Control, Multi-tenant API Security.
- **Cloud & DevOps**: AWS (ECS, EC2, S3, CloudWatch, IAM Basics), Docker, Vercel, GitHub Actions, CI/CD, Automated Deployment.
- **Testing & Quality Engineering**: Jest, Playwright, Automated Testing, Test Case Design, Production Verification, Root Cause Analysis.
- **AI-Assisted Engineering**: Claude Code, Codex, AI-assisted Planning, Code Generation, Test Drafting, Debugging, Engineering Workflow Orchestration.

Soft Skills:

- **Engineering Leadership & Collaboration**: Technical Leadership, Architectural Decision-making, Mentoring, Agile/Scrum, Cross-functional Collaboration, End-to-end Product Ownership, Stakeholder Communication.