

Fajar Maulana Firdaus

Senior Software Engineer / Tech Lead

Contact

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About

Senior Software Engineer and Technical Lead with 7+ years architecting and scaling high-availability fintech systems in TypeScript, Go, and Java on AWS, under strict reliability, security, and regulatory constraints. Founded products from zero to production, secured regulatory licenses enabling company-wide business expansion, and drove 70% infrastructure cost reductions. Proven end-to-end ownership of architecture, delivery, and production operations for high-stakes banking and payment products.

Website

fajarfirdaus.net

GitHub

[fajarmf10](https://github.com/fajarmf10)

LinkedIn

[fajar-maulana-firdaus](https://www.linkedin.com/in/fajar-maulana-firdaus)

Work Experience

Xendit

Software Engineer - Nex
(Optimization & Reliability)

Mar 2024 - Present

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- Reduced monthly infrastructure cost by ~70% through memory leak remediation, Redis migration (ElastiCache to RedisCloud), compute right-sizing, and AWS Graviton adoption - partnering directly with Infrastructure team.
- Refactored Nex money-out component and automated manual reconciliation workflows, reducing daily on-call toil by ~30% and enabling the product to operate with 2 fewer dedicated engineers.
- Diagnosed and resolved a critical Node.js memory leak, eliminating recurring on-call incidents and contributing to the broader 70% infrastructure cost reduction initiative.
- Hardened partner integrations with safer failure handling patterns, improving system resilience during external partner maintenance windows and instability periods.
- Mentored engineers on system design and code quality; authored technical specs and domain documentation adopted as team-wide references.

Xendit

Founding Engineer & Tech Lead Jul 2023 - Mar 2024
- NexCash

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- Built NexCash from zero to production as primary fullstack owner, delivering a white-label E-Money platform for enterprise clients.
- Delivered the compliance-aligned architecture, integrations, and documentation that secured Bank Indonesia Category 1 account-issuance readiness - a regulatory gate enabling Xendit's entire licensed product portfolio.
- Engineered in-house Quick Response Code Indonesian Standard (QRIS) issuing and acquiring capabilities, replacing external payment dependencies and strengthening Xendit's position as a full-stack financial infrastructure provider.
- Designed secure QR payment APIs with JSON Web Signature (JWS), JSON Web Encryption (JWE), idempotency controls, and replay-attack protection for regulated high-risk transaction flows.
- Led cloud migration from Alicloud to AWS to satisfy Bank Indonesia data residency requirements and strengthen long-term operational control.
- Drove experiment to Business-as-Usual (BAU) team graduation with technical specs, standard operating procedures (SOPs), and handover runbooks, enabling stable long-term ownership by the receiving team.
- Recognized as Top Performer (Q4 2023 - Q1 2024) for delivery quality and business impact.

Xendit

Software Engineer - Nex
(Integrations & Channel
Expansion)

Jan 2023 - Jul 2023

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- Architected and delivered credit card white-label integrations with Bank Mayapada and Bank BRI, coordinating across bank partners, compliance, and product stakeholders.
- Resolved critical Mayapada scaling bottleneck by identifying Node.js crypto blocking behavior and implementing a caching strategy that restored throughput and reduced CPU pressure.
- Implemented circuit breakers and Generic Cell Rate Algorithm (GCRA) rate limiting across bank integrations, minimizing cascade failures during partner instability and maintenance windows.
- Engineered Customer Portfolio and Risk/Fraud detection capabilities for the Nex aggregator, resolving 10+ high-priority production incidents within SLA during a high-velocity 6-month delivery cycle.

Xendit

Software Engineer - Virtual Jan 2022 - Jan 2023 xendit.co
Accounts

- Led Standardized National Open API for Payment (SNAP) migration planning and delivery to maintain Xendit's Financial Service Provider (PJP) regulatory compliance under Bank Indonesia standards.
- Expanded Virtual Accounts channel coverage by delivering production integrations with DBS Indonesia, DBS Singapore, and Bank Neo Commerce, enabling Xendit to onboard new merchant segments across Indonesia and Singapore.
- Evaluated Philippines market-entry architecture via DragonPay and Standard Chartered Bank integration paths to inform expansion strategy.
- Implemented Blue-Green and Canary deployment strategies to eliminate planned downtime on critical payment flows.
- Received The YC Award for exceptional ownership in resolving high-priority customer issues.

PT Bank BTPN (now Bank SMBC Indonesia)

Technical Lead Jan 2021 - Jan 2022 smbci.com

- Led 11 engineers across 3 teams: conducted contractor performance reviews, mentored on architecture and engineering best practices, and owned technical direction for the group.
- Re-architected 3 legacy synchronous banking systems to event-driven designs using Kafka, reducing operational turnaround time by ~70-80% for internal banking teams and cutting infrastructure costs for the affected services.
- Implemented full observability stack (ELK, Zipkin, HashiCorp Vault, Resilience4j circuit breakers) to strengthen reliability and reduce mean time to resolution.
- Built a reusable Spring Boot AOP logging library adopted across multiple services, standardizing observability patterns organization-wide.
- Owned delivery and operations for 6 core banking systems: Corporate Loans, GL Transactions, Insurance, PT Pos Indonesia payroll integration, Reconciliation, and Credit Card reconciliation.

PT Bank BTPN (now Bank SMBC Indonesia)

Full Stack Developer Oct 2019 - Jan 2021 smbci.com

- Developed Corporate Loans and General Ledger Transactions applications used daily by internal banking teams, delivering RESTful APIs across Java (Spring Boot) and Node.js service layers.
- Optimized MS SQL Server query performance and produced architecture documentation aligned with team standards.

Education

Institut Teknologi Sepuluh Sep 2015 - Sep 2019
Nopember

Skills

Languages & Frameworks

- TypeScript
- JavaScript
- Go
- Java
- Python
- Node.js
- Express
- React.js
- Next.js
- Spring Boot

Cloud & Infrastructure

- AWS (EC2, EKS, SQS, SNS, Lambda)
- Kubernetes
- Terraform
- Helm
- Docker

Data & Messaging

- PostgreSQL
- Redis
- Kafka
- RabbitMQ
- MongoDB
- MS SQL Server
- PgBoss
- BullMQ

Observability & Reliability

- Datadog
- ELK Stack
- Sentry
- Splunk
- Zipkin
- Circuit Breakers (Resilience4j)
- HashiCorp Vault

Architecture & Patterns

- Event-Driven Architecture
- Microservices
- Domain-Driven Design

Security

- JSON Web Signature (JWS)
 - JSON Web Encryption (JWE)
 - OAuth2
 - API Security
 - Idempotency & Replay Protection
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Languages

Indonesian

Native

English

Professional Working