Miftakhul Aziz

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Professional Summary

Sr. Backend Engineer with 5+ years of experience building scalable, secure, and high-performance backend systems across banking, fintech, healthcare, supply chain, and data intelligence domains. Currently working at Bank Saqu（Part of Astra Group）, focusing on Open API platforms for Account & Payment, Onboarding, and Direct Debit systems. Strong expertise in Java and Go, microservices architecture, distributed systems, and cloud-native development. Experienced in owning backend services end-to-end - from design and implementation to production support — while collaborating closely with cross-functional teams in fast-paced environments.

Working Experiences

Software Engineer Backend

Bank Saqu - South Jakarta, Indonesia

December 2024 - Present

- Design, develop, and own scalable backend services for core banking ecosystems, including Open APIs for Account & Payment, Onboarding, Direct Debit, and WebView systems.
- Build secure, high-performance RESTful APIs using Spring Boot, ensuring compliance with banking standards, security requirements, and architectural guidelines.
- Implement transactional workflows with idempotency handling, callback orchestration, and failure recovery to ensure data consistency across distributed services.
- Lead backend feature development from technical design to production release, aligning business requirements with system architecture.
- Perform deep root cause analysis on production and non-production incidents involving inter-service communication, database performance, and asynchronous processing.
- Manage inter-service API dependencies across multiple squads, ensuring reliable data flow and consistent contracts.
- Execute comprehensive testing across DEV, SIT, and UAT environments prior to QA handover.
- Apply Git Flow best practices for version control, code reviews, and controlled releases.

Technology Stack:
Java · Spring Boot · Spring Framework · Spring WebFlux · Spring Data JPA · PostgreSQL · Redis · GCP · Microservices · Software Architecture · Design Patterns · Object-Oriented Programming (OOP) · Mockito Unit Testing · GitLab · JIRA

Software Engineer Backend
Aleph Pte Ltd - South Jakarta, Indonesia
July 2023 - December 2024

- Architect and engineer robust backend services to deliver efficient and scalable RESTful APIs catering to mobile, iOS, and web platforms.
- Enhance existing RESTful API services by seamlessly incorporating new requirements to meet evolving product demands and user expectations.
- Spearheaded the development of advanced backend payment services, seamlessly integrating with external

payment gateways, orchestrating comprehensive notification systems, including email notifications, and meticulously managing callbacks for transactional integrity.

- Analytics, reproduces, and resolves intricate bugs within the existing codebase, employing meticulous debugging techniques to ensure feature robustness throughout the development lifecycle.
- Innovate and fortify the test suite with comprehensive unit testing, rigorously validating new functionalities and updates to existing features, with a strategic focus on maximizing code coverage metrics to meet Sonar quality standards.
- Implement an end-to-end logging mechanism utilizing Log4j2 or Lombok for backend services, ensuring comprehensive visibility and traceability across the application stack.
- Drive improvements across middleware applications, leveraging advanced technologies and industry best practices to optimize performance and improve usability.
- Crafting software architecture tailored to project requirements, prioritizing ease of use for developers, seamless integration with diverse technologies, and straightforward maintenance. Conducting thorough code reviews alongside fellow engineers to ensure high-quality and appropriately complex code.

Technology Stack:

Java · Software Architecture · Microservices · Design Patterns · AWS · MongoDB ·NoSQL · Reactive Programming · Spring Boot · Spring Framework · Spring Web Flux · Spring Data Mongo · Object Oriented Programming · Mockito Unit Testing · Reactor · JUnit 5 · AWS CloudWatch · JIRA

Software Engineer Backend
PT. Advotics Technology Global - South Jakarta, Indonesia
March 2022 - July 2023

- Develop Extract Transform Load (ETL) solutions to facilitate seamless data migration from OLTP to OLAP environments, ensuring data integrity and optimal performance.
- Design and implement RESTful APIs within the backend service, catering to both internal and external API consumption, adhering to industry best practices and standards.
- Drive enhancements to existing APIs, meticulously aligning them with new feature requirements, and ensuring seamless integration with backend service functionalities.
- Conduct comprehensive bug analysis and resolution across all development stages, including development, sandbox, user acceptance testing, production, and production-gold environments, utilizing advanced debugging techniques and proactive error-handling strategies.
- Engineer robust unit tests for both existing and newly developed APIs, leveraging Mockito and JUnit frameworks to ensure comprehensive test coverage and code reliability.
- Develop custom reporting solutions with scheduler functionality using crontab across all environments, optimizing reporting efficiency and ensuring timely data delivery.
- Lead SQL query optimization initiatives to enhance database performance and streamline data retrieval processes, utilizing advanced indexing techniques and query optimization strategies.
- Implement and enforce clean architecture and clean code principles, conducting rigorous local and integration testing to ensure code maintainability, scalability, and robustness.
- Manage seamless deployment of new features from development to integration environments, ensuring smooth integration and minimal disruption to ongoing operations.

Technology Stack:

Java Programming Language · SQL · Python · Bash Script · Hibernate · Java Persistence API · Query Builder · Query DSL · Elasticsearch · Amazon Web Service · Spring Boot Framework · Git Version · Java Reactor · Reactive Programming · Redis.

Software Engineer Backend
PT. Indonesia Indicator – South Jakarta, Indonesia
April 2021 - March 2022

- Spearheaded the development of data cleaning services, leveraging Python engines to process CSV and Excel formats, ensuring data integrity and consistency.
- Engineered sophisticated social network analysis (SNA) solutions for analytical products, employing machine learning techniques to model and derive insights from complex data sets.
- Established robust crawling services to stream data from social media platforms using Apache Kafka, facilitating real-time data acquisition for analysis.
- Designed and implemented data mapping and migration services, seamlessly transferring data sources to Elasticsearch. The architecture includes two primary indexes: raw data and clean data for efficient retrieval and analysis.
- Developed RESTful API services using Spring Boot, integrating data sourced from Elasticsearch. These APIs are utilized by web-based analytical services.
- Orchestrated seamless deployment of services into production environments, implementing rigorous monitoring protocols with alerting capabilities via Telegram for immediate issue resolution.
- Conducted bug fixes across existing codebases, addressing issues in both development and production environments to maintain optimal system performance.
- Implemented software architecture principles, employing layered architecture methodologies to ensure scalability, maintainability, and robustness across systems.

Technology Stack:
Java Programming Language · Python · Spring Boot Framework · GitLab · RESTful API ·Apache Spark · Machine Learning · Kibana · Hadoop · Kafka · Elasticsearch · Kibana.

Data Science Laboratory Assistant
Sumatera Institute of Technologies – Lampung, Indonesia
January 2020 - April 2020

- Deliver comprehensive practicum materials covering various aspects of data science, including data analysis, exploration, cleaning, machine learning, deep learning, modeling, data visualization, and the implementation of CRISP-DM methodology in practical sessions.
- Develop a specialized data science module centered around Python programming and machine learning, aimed at facilitating analytical tasks and model training for students.
- Offer practicum materials focusing on machine learning modeling, where students gain hands-on experience applying diverse methods such as classification and clustering to real-world datasets.
- Provide personalized consultation and assistance to students enrolled in data science courses, guiding them through complex tasks and ensuring successful completion of significant projects in the field.

Technology Stack:
Python · Jupiter-Lab · Pandas · NumPy ·Anaconda · Classical Algorithm Machine Learning · Darknet for Deep Learning · Convolutional Neural Networks · Scikit Learn.

Internet of Things Laboratory Assistant
Sumatera Institute of Technologies – Lampung, Indonesia
August 2019 - December 2019

- Designing and implementing embedded systems and IoT modules using C programming to facilitate hands-on learning experiences.
- Supplying relevant practicum materials covering Arduino, Node MCU, and other modules utilized in IoT classes to foster practical understanding and application.

- Delivering practicum materials on cloud computing, including platforms like Google Cloud Platform, to augment students' knowledge and skills in IoT deployments.
- Offering personalized consulting services to support IoT class students in successfully completing major projects and assignments related to IoT courses.

Technology Stack:

C Programming · Arduino · Arduino-IDE · Node MCU · GCP · Module Sensors.

Techical Skills

Programming Languages	Java, Golang, TypeScript, JavaScript, Python, Bash, Solidity, Move, Kotlin
Backend & Architecture	Spring Boot, Spring Cloud, Microservices Architecture, RESTful APIs, Reactive Programming, Clean Architecture, Hexagonal Architecture, Domain-Driven Design (DDD – familiarity), Event-Driven Architecture, API Gateway Pattern, Distributed Systems, Object-Oriented Programming (OOP), SOLID Principles, Go (Gin, net/http, Echo – familiarity), GORM, SQLC, Go Modules, Go Context, Middleware, Graceful Shutdown, Background Workers, Concurrency (Goroutines, Channels)
Database & Messaging	PostgreSQL, MySQL, MariaDB, MongoDB, Redis, Elasticsearch, Apache Kafka, RDBMS & NoSQL Design, Query Optimization, Indexing Strategies, Transactions & Isolation Levels
Cloud & Ops	AWS (EC2, S3, RDS, CloudWatch, IAM), Google Cloud Platform (Compute Engine, Cloud Storage), Containerization (Docker), CI/CD Pipelines, Environment Configuration & Secrets Management
Observability & Monitoring	Centralized Logging (ELK Stack), Metrics & Monitoring (Prometheus – familiarity, CloudWatch), Distributed Tracing (OpenTelemetry – familiarity), Log Correlation, Alerting & Incident Monitoring
Testing & Quality	JUnit, Mockito, Go Testing Framework, Test-Driven Development (TDD), Unit Testing, Integration Testing, Contract Testing (familiarity), Code Quality Analysis (Sonar)
Security	JWT-based Authentication, Role-Based Access Control (RBAC), API Security Best Practices, Input Validation, Secure Data Handling, Idempotency & Replay Protection
Tools & Collaboration	GitHub, GitLab, Bitbucket, Swagger / OpenAPI, Postman, Jira, Confluence, ELK Stack

Educations

Bachelor of Informatics Engineering - GPA 3.28/4.00

Sumatera Institute of Technologies – Lampung, Indonesia

August 2016 - March 2021

Thesis: Vehicle License Plate Recognition using Deep Learning (CNN)

- Designed an end-to-end computer vision pipeline for vehicle license plate recognition.
- Applied YOLOv3 and ResNet-50 for object detection, followed by OpenCV-based character segmentation.
- Implemented character classification using MobileNetV2, optimizing accuracy and inference performance.