

Khairunnaufal Hanif

Software Engineer - Backend

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SUMMARY

I'm a backend engineer with over three years of experience, and I'm passionate about building scalable systems and solving real-world problems. I started as a mobile developer in 2020 and later shifted my focus to backend development, working with Go, microservices, and cloud technologies. I've contributed to projects ranging from government systems to fintech, handling everything from designing APIs to optimizing databases and implementing event-driven architectures. I enjoy tackling challenges, collaborating with teams, and continuously learning new technologies. Let's build something awesome together!

EDUCATION

Universitas PGRI Yogyakarta

Bachelor of Information Technology (GPA 3.72/4.00)

Bantul, DIY

2017 – 2023

WORK EXPERIENCE

PT.Sinergi Rajawali Mataram | Contract

South Jakarta, DKI

Backend Engineer

November 2024 – Present

- Placement at Direktorat Jenderal Imigrasi.
- Responsible for full development lifecycle, designing, developing, testing, deploying, maintaining, monitoring, and improving the SSO project.
- SSO (single sign-on) is a customized app from an open source project that we use to solve challenges that Direktorat Jendral Imigrasi is facing, including but not limited to authentication, authorization, security, monitoring, etc.
- Integrate with new and existing applications to be able to implement SSO module in their app.

PT Transnovasi Bangun Persada | Contract

South Jakarta, DKI

Backend Engineer

April 2024 – July 2024

- We developed an application called K3I (Komunikasi, Koordinasi, Kendali, dan Informasi) technology to support the operations of the National Police Traffic Corps (Korlantas Polri).
- This application can provide live tracking of police officers using Google Maps to monitor all police officers throughout Indonesia. We also provide an information system to communicate with the on-field police and manage police officer duties.
- This feature can help the police perform the Ketupat (arus-mudik and arus-balik) operation, Nataru (natal tahun baru) operation, and Korlantas Polri performs escort operations at international events.

BPJS Ketenagakerjaan | Contract

South Jakarta, DKI

Backend Engineer

April 2023 – April 2024

- Placement at BPJS-TK in PTI department in PMK squad.
- Responsible for full development lifecycle, designing, developing, testing, deploying, maintaining, monitoring, and improving the CNS project.
- CNS is a centralized notification system that manages, organizes, and delivers many types of notifications, such as email, SMS, push, and in-app.
- Wrote well-structured and testable code with a CQRS pattern, conducted debugging, addressed bugs, and performed bug fixing with proper solutions.
- Utilized microservices to build highly scalable, maintainable, flexible, modular, and resilient applications.

PT. Bixbox Teknologi Perkasa (Refactory) | Contract

Sleman, DIY

Software Engineer

September 2021 – September 2022

- Join the Engineering division.
- Involved in many projects from well-known companies as android, frontend, and backend engineer with various tech stacks including but not limited to Kotlin, Java, PHP, Laravel, Go, PostgreSQL, Redis, etc. to solve real-world problems with proper approaches based on their business needs.
- Wrote well-structured and testable code with many design patterns (Microservices, Monolithic, MVC, MVVM), conducted debugging, addressed bugs, and performed bug fixing with proper solutions.
- Collaborated with other engineers, including frontend, backend, android, QA, and PM using various collaboration platforms such as Jira, Microsoft Teams, Slack, etc. to solve complex problems effortlessly and craft flawless digital experiences for many clients.

PT. Prima Mandiri Komunikasi | Contract

Yogyakarta, DIY

Mobile App Developer

January 2021 – October 2021

- Responsible for full development lifecycle, designing, developing, testing, deploying, maintaining, monitoring, and improving cross-platform mobile apps using Flutter for both Android and IOS to fulfill business needs from many clients.

PT. Oninyon Revolusi Kreatif Indonesia | Internship

Yogyakarta, DIY

Mobile App Developer

October 2020 – January 2021

- Responsible for full development lifecycle, designing, developing, testing, deploying, maintaining, monitoring, and improving cross-platform mobile apps using Flutter for Android.

SKILLS

Soft skills include communication, problem-solving, attention to detail, and analytical skills.

Language: Go, SQL, NoSQL, Dart, Kotlin, Java, PHP.

Backend: Linux, PostgreSQL, MySQL, MariaDB, OracleDB, MongoDB, Redis, RESTFUL API, gRPC, Apache Kafka, RabbitMQ, Prometheus, Jaeger, Laravel.

Mobile: Flutter, Android Native.

Platform: GitHub, GitLab, Bitbucket, Jira, Microsoft Teams, Slack, Clickup, Notion.

Tools: Git, Docker, VIM, VS Code, Android Studio, Xcode, Terminal, Browser, Postman, Dbeaver, Redis Insight, MongoDB Compass, Redpanda, Grafana.

PROJECTS

- **PT.Sinergi Rajawali Mataram**

November 2024 - Present

Imigrasi SSO | November 2024 - Present

Designed and developed a centralized Single Sign-On (SSO) system for the Direktorat Jenderal Imigrasi, tackling existing issues in authentication, authorization, and security. Built upon a robust open-source foundation, the system was extensively customized to meet regulatory and operational demands, supporting secure integration with 10+ internal systems using OIDC and SAML protocols.

My responsibilities:

- Developed and maintained secure, scalable backend services using Golang.
- Customized and extended open-source authentication platforms to meet business logic.
- Designed and implemented authentication and authorization flows using SSO standards (OIDC, SAML).
- Integrated SSO with multiple legacy and modern systems via RESTful APIs.
- Debugged and refactored authentication pipelines to improve performance and maintainability.
- Collaborated with frontend and security teams to ensure secure data flow and session management.

Team size: 4 persons

Technologies/Tools: Golang, PostgreSQL, RESTFUL API, Postman, pgAdmin, Browser, GitLab, WA

- **PT Presisi Karya Digital**

October 2024 - Present

Smart POS | October 2024 - Present

Contributed to the development of a multi-tenant Point-of-Sale (POS) platform with a strong backend foundation serving both a dashboard for merchants and a mobile app for cashiers. The system supports complex business logic, including RBAC, inventory tracking, product management, and sales transactions, built for scalability and easy onboarding of multiple businesses.

My responsibilities:

- Maintained and improved backend services written in Go, focusing on modularity and code clarity.
- Designed and modified PostgreSQL schemas to support new features and business use cases.
- Developed and exposed RESTful APIs for both web and mobile client integration.
- Implemented RBAC for user and role separation (merchant, staff, cashier).
- Ensured transactional integrity and consistency across services.
- Performed code reviews, contributed to architectural discussions, and optimized database queries for performance.

Team size: 4 persons

Technologies/Tools: Golang, PostgreSQL, RESTFUL API, Postman, pgAdmin, Browser, Github, WA, App Diagram

- **PT Transnovasi Bangun Persada**

April 2024 - July 2024

K3I | April 2024 - July 2024

K3I is a platform (web application) used by the Traffic Corps of the Indonesian National Police (Korlantas Polri) to carry out four main things, namely communication, coordination, control, information, and so on. With this platform, Korlantas Polri can accommodate several major tasks or events such as presidential escorts, international events (ASEAN Summit, WWF), and other important activities both nationally and internationally.

My responsibilities:

- Revamp the existing monolith application (Javascript, NodeJS) into a microservice using go as the main language.
- Adjust the existing database schema into a new schema to make it even better and fit the new system design (microservice) best.
- Grouped the related business domains into separate services so it will make it easier to change, scale, isolate errors, and handle failover.
- My most challenging task is implementing real-time tracking logic into new services that utilize goroutine, channel, and mutex.

Team size: 13 persons

Technologies/Tools: Golang, PostgreSQL, Redis, RabbitMQ, RESTFUL API, VS Code, Postman, Dbeaver, Browser, GitLab, Notion, Clickup, Discord

- **BPJS Ketenagakerjaan**

April 2023 - April 2024

Centralized Notification System | April 2023 - September 2023

A centralized notification system is an internal system that allows surrounding applications to send notifications such as SMS, email, push, and in-app notifications directly without implementing them from scratch.

My responsibilities:

- Handle notification and account service with the CQRS pattern
- Implement Apache Kafka for a message broker
- Implement gRPC between both services
- Implement Redis for caching
- Implement Jaeger for distributed tracing and Prometheus for monitoring using Opentelemetry

Team size: 3 persons

Technologies/Tools: Golang, MariaDB, Redis, Apache Kafka, gRPC, Opentelemetry, Prometheus, Jaeger, Docker, Grafana, Redpanda, OpenShift, VS Code, Postman, Dbeaver, Browser, GitLab, Jira, Whatsapp

Microservices | September 2023 - April 2024

The microservices project is a big plan and the most challenging project to fully migrate huge monolith legacy applications into small, independent, and isolated services that can easily be maintained, deployed, and scaled. Its migration process includes moving to new database schemas and separating applications based on its business domain while using the newly created schema and microservice app to the production server, but still having to consider data synchronization and consistency so it can be fully compatible with existing apps and databases.

My responsibilities:

- Handle at least 3 services
- Implement gRPC and RESTFUL API including validation, middleware, data flow, business logic, and database query
- Implement unit tests using testify, mockery, and go-sqlmock library to cover the feature and repository layer

Team size: 30+ persons

Technologies/Tools: Golang, OracleDB, gRPC, RESTFUL API, Docker, VS Code, Postman, Dbeaver, Browser, GitLab, Jira, Whatsapp

- **PT Kideco Jaya Agung**

February 2022 - March 2022

One Kideco | February 2022 - March 2022

One Kideco is an internal dashboard based on the web that is used to manage mining processes such as observing, blasting, collecting, etc. It's also possible to give assignments, monitor, generate reports, etc.

My responsibilities:

- Implement the generate report feature
- Design and migrate the database schema
- Provide endpoint via API
- Maintenance and enhancement

Team size: 6 persons

Technologies/Tools: Golang, PostgreSQL, VS Code, Postman, Dbeaver, Microsoft Teams

- **PT MNC ALADIN INDONESIA**

November 2021 - January 2022

Mistraladin CMS | November 2021 - January 2022

Mistraladin CMS is an internal dashboard based on the web that is used not only to manage content such as discounts, promos, badges, tickets, etc., but also to monitor traffic, generate reports, and analyze users from the Mistraladin Mobile App.

My responsibilities:

- Implement the badge feature
- Design and migrate the database schema
- Integrate with cloud storage
- Maintenance and enhancement

Team size: 7 persons

Technologies/Tools: PHP, Laravel 5, PostgreSQL, Redis, Docker, VS Code, Postman, Dbeaver, Slack

Mistraladin Mobile App | November 2021 - January 2022

Mistraladin is one of the biggest e-commerce platforms in Indonesia that provides many services such as online shopping, booking hotels, trains, planes, and many more. It's integrated with many payment methods so users can easily purchase and monitor their orders in real time.

My responsibilities:

- Implement hotel review & badge feature
- Slicing UI design
- Integrate with the backend via API
- Maintenance and enhancement

Team size: 7 persons

Technologies/Tools: Java, Kotlin, XML, Android Studio, Postman, Slack

- **Kanwil BPN Kaltim**

December 2021 - February 2022

BPN Siap Ukur | December 2021 - February 2022

BPN Siap Ukur is an internal dashboard based on the web that is used to serve society that wants to take care of their land. One of its core features is integrated with a mobile app that officers use to report real-time situations.

My responsibilities:

- Create from scratch
- Create and migrate the database schema
- Provide endpoint via API
- Maintenance and enhancement

Team size: 7 persons

Technologies/Tools: PHP, Laravel 8, PostgreSQL, Filament UI, VS Code, Dbeaver, Postman, Browser, Telegram

- **PT Bio Farma (Persero)**

May 2022 - September 2022

Mediverse Mobile App | May 2022 - September 2022

Mediverse is a medical and pharmacy platform that makes it possible to purchase medicine, make appointments with doctors, make online reservations, deliver orders, find the nearest health facilities, and much more.

My responsibilities:

- Create from scratch
- Slicing UI design
- Integrate with the backend via API

Team size: 20+ persons

Technologies/Tools: Kotlin, XML, Android Studio, Postman, Telegram

- **PT. Prima Mandiri Komunikasi**

May 2021 - August 2021

Digital Desa | May 2021 - August 2021

With this application, village residents can carry out various kinds of transactions such as payments, electricity, water, credit, data packages, and others, so that residents can easily make transactions anytime and anywhere. Apart from transactions, this application can also digitize queues at village health centers, making things easier for residents.

My responsibilities:

- Create from scratch
- Slicing UI design
- Integrate with the backend via API

Team size: 4 persons

Technologies/Tools: Flutter, Dart, Figma, VS Code, Xcode, Postman, Telegram

CERTIFICATION

HackerRank

Go (Basic)

Credential ID: [97cfa150833e](#)

Issued on January 2023

No expiration date

Skyshi

API Golang case Todo-list

Credential ID: [TZI621](#)

Issued on January 2023

No expiration date

Dicoding

Belajar Dasar Pemrograman Javascript

Credential ID: [JLX1LKD06X72](#)

Issued on February 2023

Expires on February 2026

Dicoding

Belajar Membuat Aplikasi Back-End untuk Pemula

Credential ID: [JMZVNLDWRPN9](#)

Issued on February 2023

Expires on February 2026

Dicoding

Belajar Jaringan Komputer untuk Pemula

Credential ID: [QLZ92N17MX5D](#)

Issued on February 2023

Expires on February 2026