

Ahmad Fazri Nursamsi

Software Engineer · NestJS & Go Backend · Flutter · AI & IoT

Jakarta, Indonesia
fazrinursyam@gmail.com
fazri.online · github.com/AhmadFazriNursamsi
linkedin.com/in/ahmad-fazri-nursamsi-679bb1232

PROFILE

Software Engineer with **5+ years** of experience building web, mobile and backend systems for enterprises, clinics, churches and cooperatives. Moved from GeneXus low-code to full-stack engineering. Now owns a production **NestJS + Flutter** platform end to end, from API and database to mobile releases and CI/CD. Also designs scalable backends in **Go** (microservices, Redis queues, WebSocket). Integrates **AI** into products through LLM function calling, RAG and on-device speech recognition. Also builds IoT systems end to end, from ESP32 firmware to a self-hosted smart home hub running 24/7.

TECHNICAL SKILLS

Languages	Go, TypeScript, JavaScript, PHP, Python, Dart, Java, Kotlin, C++, SQL
Backend	Gin, Echo, NestJS (Fastify), Express, Bun/Elysia, Laravel, CodeIgniter · REST, WebSocket, JWT, Swagger
Frontend & Mobile	Next.js, React, Vite, Tailwind CSS · Flutter, React Native/Expo, GeneXus (Android, iOS, Web) · WordPress
Data & Infra	PostgreSQL, MySQL, Redis, Firebase · Drizzle, TypeORM, Sequelize · Docker, Nginx, PM2, Linux/systemd, Cloudflare Tunnel, GitHub Actions
AI	Gemini API (function calling), LLM summarization, RAG with Haystack + Milvus, Whisper speech-to-text
IoT	ESP32/ESP32-C3, ESP8266, MicroPython, Arduino, BLE, Tuya Cloud, ONVIF, go2rtc

EXPERIENCE

Software Engineer Oct 2025 – Present · North Jakarta

PT. Berjaya Inovasi Global

- Moved from low-code to hand-written code. Own the full stack of the company's church platform, from database and API to mobile app, admin portal and deployment.
- Rebuilt **CATU** from GeneXus as **CATU v2**: a **NestJS 11 + PostgreSQL 16** REST API (JWT, Helmet, Swagger), a **Flutter** app for parishioners, staff and priests, and a Vite + Tailwind admin portal.
- Delivered priest sacrament services, multi-item funeral masses, a registration approval workflow, group chat and Firebase push notifications. The app has shipped through **v2.9 (145 builds)**, with ~500 commits so far.
- Set up versioned DB migrations with a least-privilege role, Docker on shared infrastructure, **GitHub Actions** CI, and APK distribution through S3 signed URLs.

GeneXus Low-Code Programmer & Analyst Jan 2023 – Sep 2025 · North Jakarta

PT. Berjaya Inovasi Global

- Analysed requirements, then designed and delivered web and mobile applications with GeneXus for Android, iOS and web.
- Built **CATU**, a cross-platform Catholic mass booking app with scheduling, conflict detection, reminders, secure payments and offline-first support. Released on the Play Store and App Store.
- Built an **AI document summarization system**: a RAG pipeline (Haystack + Milvus, multiple LLMs) with a GeneXus front end, multi-language support and PDF/Word export.
- Built a **Smart Meeting Room & Booking System** with real-time availability, conflict detection, Google Calendar/Outlook sync, live AI translation and LLM-generated meeting summaries.

Back End Developer

Mar 2022 – Mar 2023 · South Jakarta

Inovatif 78

- Designed relational schemas, wrote complex SQL queries and managed relations between tables.
- Built and verified REST APIs in Node.js (Express, Sequelize, JWT) and Laravel, with a focus on clean, maintainable code.
- Delivered an e-commerce REST API for plants and animals. Features include multi-role JWT auth, payment webhooks, image uploads, rate limiting and Swagger docs, deployed with PM2 behind Nginx.

Fullstack Developer

Jan 2021 – Mar 2022 · West Jakarta

HERCARE

- Maintained production systems by monitoring and fixing software defects across Laravel/PHP and JavaScript applications.
- Worked with front-end developers, UX designers, analysts and sales and marketing staff, and advised clients on software upkeep and performance.

SELECTED PROJECTS

Liliya: Smart Home Hub on a Recycled TV Box

Python · aiohttp · Gemini · Android

Turned a discarded ISP set-top box (1.9 GB RAM) into a 24/7 hub. It runs a Gemini voice assistant with 14 function-calling tools and on-device Whisper STT, smart-home control through Tuya and Firebase, and CCTV recording with go2rtc, ONVIF pan-tilt and checksum-verified Google Drive backup. A 19 KB Android app is built in CI. Both recorders together use about 4% CPU.

Sajadah: Cooperative Management Platform

NestJS · Drizzle · React · Expo · PostgreSQL

A TypeScript monorepo covering members, stock, orders, profit sharing, commissions and a ledger. The API is NestJS 11 (Fastify) with Drizzle, alongside a React 19 + Vite dashboard and an Expo mobile app. Domain logic and Zod schemas live in one shared package. Rebuilt from a Next.js v1.

Real-Time Chat Microservices

Go · Gin · Echo · Redis · PostgreSQL · Docker

Gin serves the REST API and Echo the WebSocket layer. Redis Pub/Sub syncs instances, and each service has its own PostgreSQL database. Supports rooms, read receipts and JWT auth, with Docker Compose behind Nginx.

Background Job Processing System

Go · Redis · Docker

Runs immediate, scheduled and recurring jobs, with exponential-backoff retries, a dead-letter queue, a real-time dashboard and horizontal scaling.

AI News Scraping Pipeline

Go · Gemini · PostgreSQL

Scrapes multiple news sources on a schedule. Gemini cleans and summarises each article and extracts metadata, and results are stored without duplicates, ready for mobile clients.

WA-Gate: WhatsApp Gateway API

Bun · Elysia · TypeScript · PM2

A type-safe REST gateway built on whatsapp-web.js. Its anti-ban pipeline uses two instances to simulate organic conversation before each message is delivered.

Freelance Websites

WordPress · PHP

Herca Academy is a custom LMS for aesthetic doctors, with encrypted video, quizzes, certificates and payments. **Carla Skin Clinic** is a custom theme with WhatsApp booking, structured-data SEO and PageSpeed scores of 95+ on mobile and 99+ on desktop.

EDUCATION

Universitas Bina Sarana Informatika

Bachelor's program · 2020 – Present

Mobile Programming (Kotlin)

BBPLK Bekasi · 2021

CERTIFICATION

Technical Support Fundamentals

Google · Coursera · Feb 2022 · ID 4FHL2UAEYRRB