

Fadhil Muhammad

Software Engineer · System Analyst · IT Consultant

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Portfolio and case studies: pamulab.my.id/work

SUMMARY

Software engineer and system analyst with 3+ years of turning how a company actually operates into systems its people use every day. I lead the GEMA product line at Green Harvest Solutions, which takes palm oil estates and mills off paper: field work recorded once at the source, maintenance tracked from issue to completion, and data flowing into the client's ERP and management reports. I own the whole cycle, from field studies and requirement analysis to system design, development, deployment, user training and support, working directly with clients and leading a team of developers and implementors. Earlier I delivered hospitality, POS, self-ordering and attendance systems for a multi-outlet business group.

SKILLS

Mobile	Flutter, Dart, Provider, Dio, Freezed, Clean architecture, Offline-first, Kotlin, Jetpack (Hilt, Room, CameraX), Google Play release
Web	React, Next.js, TypeScript, Redux, TanStack Query, Tailwind CSS, Motion, Leaflet
Backend & infra	.NET Core, Node.js, Express, Hono, Python, REST API, Swagger, SQL Server, MySQL, Prisma, Firestore, ASP.NET Web Forms, Crystal Reports, Docker, IIS, NGINX, Plesk, Vercel, GitHub Actions
Integrations & hardware	ERP integration, Third-party APIs & SDKs, Google Maps API, Firebase, NFC (Android, PC/SC), Bluetooth thermal printing, Android TV kiosks
AI & monitoring	TensorFlow Lite, Google ML Kit, YOLOv8, LLM APIs, Prometheus, Grafana, Sentry, Crashlytics
Analysis & design	Requirement gathering, Business process analysis, Use case diagram, Data flow diagram (DFD), ERD, Class diagram, User flows, Wireframes, Figma
Ways of working	Field studies, requirement gathering, estimation, Agile delivery, code review, user training, client presentations

EXPERIENCE

Software Engineer · Green Harvest Solutions · PT Semesta Agri Solusi Dec 2025 – Present

Medan · Full-time · On site and with clients

Mobile and web software for palm oil operations: the GEMA product line and the Green Harvest Plantation ERP, deployed per client with isolated servers and databases.

- Lead the GEMA product line for plantations and mills with a team of developers and implementors: field studies, requirement analysis, estimation, client presentations and delivery.
- Took estate field reporting off paper with GEMA Plantation: an offline-first field app and a web CMS, so attendance, harvest and upkeep work is recorded once in the field, with photo, location and a unique record number, and reaches management without re-typing.
- Replaced paper work orders in palm oil mills with GEMA Factory: machines identified by QR code, issue reports with readings checked against thresholds, preventive maintenance, approvals and work orders from open to completed.
- Integrated both products with the client's ERP so master data, daily plans and purchase orders arrive without manual export, and built an external API for clients on a different ERP.
- Added on-device fruit ripeness detection for field supervisors and an AI assistant that answers management questions about production, maintenance and reports.
- Deploy, monitor and troubleshoot client servers and databases in production, and support the client's existing ERP modules.
- Train users and support clients on site and online; rebuilt the company website into a product site the sales team uses for demos, and designed product decks and brochures.

Software Engineer · Samta Cloud Nov 2025 – May 2026

Medan · Part-time · Project-based

- Built a mobile app that digitises day-to-day maintenance work in hotels and hospitality operations.
- Owned the UI, API integration and state management, structured with clean architecture so the app stays maintainable as features grow.
- Worked with the development team to keep releases stable and aligned with business requirements.

Product Engineer · Freelance

Nov 2023 – Apr 2026

Remote · Self-employed

- Worked directly with business owners to find the core problem and turn it into working software.
- Analysed and built a purchasing, sales and inventory system for a retail and stock business, from process diagrams, wireframes and data model to the full-stack build.
- Delivered a mobile attendance app for a private company, with location validation to keep presence records accurate.
- Designed a livestock and distributor management system and a multi-role preloved marketplace in Figma, from system architecture and user flows to hi-fi prototypes.

Flutter Facilitator · BEKUP × Dicoding Indonesia

Jul 2025 – Nov 2025

Remote · Part-time

- Facilitated weekly online sessions and tracked progress for participants from very different backgrounds.
- Reviewed and validated participant journals with 100% compliance to programme standards.
- Supported 15+ instructor-led training sessions end to end.
- Introduced peer programming and collaborative learning to strengthen retention and teamwork.

Flutter Developer · DMB · PT Damai Nusa Abadi (DNA Group)

Oct 2024 – Sep 2025

Medan · Hybrid · Full-time

- Designed and built a self-ordering app for kiosks and tablets in the group's food and beverage outlets, from UI/UX to the ordering and POS integration.
- Built attendance with face recognition and fake-GPS detection to prevent proxy check-ins, and an offline mode that keeps the POS running without a connection.
- Delivered modules for hotel, asset, POS, inventory and multi-outlet management systems.
- Released and maintained the group's apps on Google Play, working with operations and business teams on requirements.

Graphic Designer (Internship) · Sentosa Digital Printing

Aug 2019 – Nov 2019

Medan · Vocational school field practice

- Handled graphic design requests directly with clients, adapting to different client types and briefs.

PROJECTS

OneTap-SPB · Personal project

2026

- Desktop app for palm oil mill weighbridges that moves the delivery note from the truck driver's NFC card into the company database in one tap, replacing manual re-typing while trucks queue.
- Checks every card before saving, never records the same delivery note twice, and logs who saved or changed each record and when.

LEADERSHIP & COMMUNITY

President, BITSMIKRO, Informatics Student Association (Sep 2022 – Sep 2023): Led and managed the association and its divisions for a full term.

Mentor Assistant, Universitas Mikroskil (Jan 2023): Helped participants solve the problems they ran into during the hands-on sessions.

Peer Tutor Study Group, Kampus Merdeka × Dicoding, Studi Independen (Aug 2022 – Dec 2022): Taught and assisted fellow participants with the problems they ran into during the Flutter and back-end learning path.

Media & Information Division Staff, BITSMIKRO, Informatics Student Association (Dec 2021 – Sep 2022): Communicated the association's news through social media posts, flyers, thumbnails and the organisation blog.

EDUCATION & TRAINING

Universitas Mikroskil, Bachelor of Informatics Engineering · GPA 3.91 / 4.00. Thesis project: Angkutin, a waste pickup app 2020 – 2024

Bangkit Academy (Google, GoTo, Traveloka), Mobile Development cohort · Kotlin, Jetpack Compose, SOLID principles and UX design, plus a capstone with ML and cloud teams Feb 2023 – Aug 2023

Kampus Merdeka × Dicoding, Studi Independen, Multi-Platform (Flutter) & Back-End (Node.js) · Best Graduate, Aug 2022 – Dec 2022
and peer tutor for the study group

SMK Negeri 10 Medan, Multimedia 2017 – 2020

CERTIFICATIONS & LANGUAGES

Flutter Developer Expert, Dicoding Indonesia, 2022 · Android Developer (Kotlin, Xml), Bangkit Academy, 2023 · Back-End Developer (Node.js), Dicoding Indonesia, 2022 · Belajar Penerapan Machine Learning untuk Flutter · Learn SOLID Programming Principles · Learn Git Basics with GitHub

Indonesian (native) · English (limited working proficiency)