Muhammad Syaiful Anwar

Software & AI Systems Engineer

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SUMMARY

Software and AI systems engineer in Indonesia (UTC+7), working remotely, with a backend core: REST APIs and microservices in Node.js (Express, NestJS), Python (Flask, FastAPI) and Laravel, including bank integration, real-time messaging and Dockerized deployments. I also build AI agents and RAG assistants, mobile apps and the servers behind them. Eight roles since 2022, more than twenty projects, two apps live on Google Play and an open-source tool with 247 GitHub stars.

CORE SKILLS

Software engineering: Node.js (Express, Fastify, NestJS), Python (Flask, FastAPI), Laravel, REST APIs, Swagger/OpenAPI, WebSocket and Socket.io, PostgreSQL, MySQL, MongoDB, Redis, RabbitMQ, Next.js

DevOps: Docker, GitHub Actions CI/CD, Linux servers, Nginx, PM2, AWS and GCP, Loki and Tempo observability, self-hosted deployments

AI engineering: LLM agents with tool calling, RAG (pgvector, Qdrant), speech-to-text (Whisper), generative AI, predictive ML and reinforcement learning, human-in-the-loop workflows

SaaS architecture: Multi-tenant workspaces, role-based access, billing and payments (Midtrans, DOKU), queues and realtime

Mobile: Flutter, Expo and React Native, Google Play releases, WhatsApp OTP login, push notifications

Blockchain: Solidity and Hardhat, Circom and zkVerify (testnet prototype), Solana, exchange data with CCXT

EXPERIENCE

Back End Developer, Taiwan Mobile — Nov 2025 – Present
Remote contract
Building production REST services in Python and Flask. Data models and migrations with SQLAlchemy and Alembic, AI capabilities integrated into backend services, and file storage on Google Cloud Storage.
Stack: Python, Flask, SQLAlchemy, Alembic, PostgreSQL, GCS

Back End Developer, Wetalk.id — Nov 2024 – Apr 2025
Full-time
Microservice APIs and bank integration with Node.js and Express, documented with Swagger.
Stack: Node.js, Express, Swagger

Fullstack Engineer, Neosoft Teknologi Asia — May 2024 – Oct 2024
Full-time · Remote
Built, maintained and optimised a clinic application on the Laravel stack with Vue.js.
Stack: Laravel, Vue.js

Full Stack Engineer, Layana Computindo — Nov 2023 – May 2024
Part-time
Laravel and Node.js APIs for multiple platforms, with Next.js and React front ends in TypeScript.
Stack: Next.js, React, TypeScript, Laravel

Back End Developer, Majesthink — May 2023 – Nov 2023
Freelance · Remote
Backend development with Laravel and Socket.io.
Stack: Laravel, Socket.io

Back End Engineer, Wetalk.id — May 2023 – Oct 2023
Part-time · Remote
Node.js and Express APIs on MongoDB, MySQL and PostgreSQL, a WhatsApp chatbot, and RabbitMQ as message broker.
Stack: Node.js, MongoDB, PostgreSQL, RabbitMQ

Programmer, 7Smarts Indonesia — Jan 2023 – May 2023
Full-time
Mobile APIs, a CodeIgniter web app, realtime features over WebSocket and a Flutter mobile app.
Stack: CodeIgniter, WebSocket, Flutter, MySQL

Fullstack Programmer, Look Creative — May 2022 – May 2023
Contract
Laravel web apps with payment gateway integration. One project, APOB Boyolali, was named best nationally and honoured by Bank Indonesia.
Stack: Laravel, Payment gateway

PROJECTS AND CASE STUDIES

Designed and built end to end by me. Counted in the repository.

ReachAI

May 2026 – Oct 2026 · 118 commits

WhatsApp AI workspace · Live · reachai.asiifdev.com

Sales and billing over WhatsApp in one workspace: a unified inbox where AI drafts replies from the company knowledge base, a CRM pipeline, proposals, invoices and manual-transfer payment verification.

- A shared inbox with contacts, deals, tickets and a public chat widget, per business workspace.
- AI drafts a reply and also classifies the conversation: intent, priority, sales stage and follow-up date.
- Each workspace sets its own persona, business hours, escalation keywords and confidence threshold.

Counted in the repository: 141 API route handlers · 31 database tables · 39 migrations · 50 test files
Stack: RAG, pgvector, WhatsApp, CRM, Billing, Midtrans
Note: Tenant isolation has been checked only by the project's own audit.

AlatPintar

Jul 2025 – Nov 2026 · 158 commits

AI outreach assistant · Live · alatpintar.id

Finds local businesses on Google Maps, scores how well they fit what you sell, and drafts the first WhatsApp or email message in your style. A person approves every message before it is sent. Free to self-host (AGPL) or use the hosted version.

- Collects businesses from Google Maps with a headless browser (Playwright); other sources include OpenStreetMap, Overture and CSV or Excel import.
- Scores each lead for fit and drafts a WhatsApp or email message with an AI model.
- Every draft waits in an approval outbox; sending is paced to protect the phone number.

Counted in the repository: 109 route decorators in 18 controllers · 29 database models · 23 migrations · 247 GitHub stars, 69 forks
Stack: NestJS, Next.js, pgvector, Playwright, OpenAI-compatible
Note: Sending through a linked-device WhatsApp library is not an official channel, so volumes should start small.

Hikam Shughro

Sep 2026 – Oct 2026 · 107 commits

Mobile app + AI · Live on Google Play · hikam-shughro.web.id

A Flutter app with its own Node.js backend for a community organisation: finance, dues, attendance, meetings, minutes, procurement, live sessions and a book library. Maktabah AI answers from reference books with citations (RAG on a Qdrant vector database), and meeting recordings are transcribed with Whisper large-v3 into minutes.

- One mobile app with 22 feature areas, including finance, dues, attendance, meetings, minutes, procurement, policies, live sessions, prayer times and a book library.
- Passwordless login with a one-time code sent over WhatsApp, and permissions per position.
- Maktabah AI answers questions from the reference books and cites the passages it used.

Counted in the repository: 22 feature areas in the app · 50 database models · ~180 route handlers in 15 groups · 107 commits
Stack: Flutter, Fastify, MySQL, Qdrant, Whisper large-v3, WhatsApp OTP
Note: Automated test coverage is minimal.

Orbyte

Oct 2026 – Nov 2026 · 64 commits

AI operations manager · Live · ai-business.asiifdev.com

An operating system for software agencies: clients, subscriptions, invoices, leads and tasks in one place. The AI spots what needs attention and drafts the next step, and a person approves anything risky. Built for the Meta Global AI Developer Hackathon.

- A chat assistant with typed tools: some only read, some draft, and "act" tools create an approval card before anything changes.
- Modules for clients, packages, subscriptions, invoices, leads, tasks, documents and meetings.
- An append-only audit log and an AI usage log with tokens and cost per call.

Counted in the repository: 48 database tables · 29 migrations · ~119 test files · 64 commits in 8 days
Stack: Astro, React, TypeScript, Drizzle, PostgreSQL, Telegram bot
Note: Built in about a week for a hackathon, so it is a production-quality prototype rather than a long-running product.

Serbuu!

Oct 2026 – Nov 2026 · 298 commits

Commerce platform · Live · serbuu.web.id

In-store POS, a merchant-owned online shop and marketplace channels running from one shared stock, with multi-branch inventory, orders, payments and shipping. It continues the work of KiosPro.

- 25 modules, including POS, inventory, catalogue, storefront, marketplace, payments, escrow-style orders, bills and prepaid top-ups, shipping, procurement, loyalty and returns.
- Multi-tenant and multi-branch: each merchant gets a shop, with the subdomain slice already live.
- Payments and payouts through Midtrans; prepaid and bill payments through Digiflazz with signed webhooks.

Counted in the repository: ~165 model files · 185 migrations · ~295 test files · 298 commits
Stack: Laravel, Multi-tenant, Midtrans, Digiflazz, Meilisearch
Note: Still in active development: several planned modules, such as custom domains, are not built yet.

INVLY.ID

Jun 2025 – Nov 2026 · 232 commits

Rental management SaaS · Live · invly.id

Rental and inventory management for equipment, clothing and vehicle rental: a rental POS with condition checks on return, QR-coded items, multi-branch stock transfers, a public catalogue with online booking, WhatsApp notices and an AI-written business summary.

- A rental POS with condition checks when items leave and return, partial or full returns, discounts, extensions and PDF invoices.
- Items with QR or barcodes, collections and stock transfers between branches.
- A public catalogue and booking requests with availability checks and vouchers.

Counted in the repository: 18 models · 55 migrations · ~230 routes · 232 commits since June 2025

Stack: Laravel, Multi-branch, QR codes, Reverb, OpenRouter

Note: Each deployment serves one business; branches share it, other customers do not.

Votein

Aug 2026 – Sep 2026 · 12 commits

Digital voting SaaS · Live · votein.id

Online voting for organisations: sessions with candidates, optional voter checks (email code, WhatsApp code or ID-number format), one vote per voter, live results with a region map, and add-ons paid per session.

- Organisations with members and invitations; voting events with candidates and photos.
- Voter checks per event: none, an email code, a WhatsApp code, or an ID-number format check.
- One vote per voter, enforced by an atomic claim inside a database transaction.

Counted in the repository: 16 data models · ~26 API route files · ~22 pages · 39 findings in the internal audit

Stack: Next.js, Prisma, PostgreSQL, Midtrans

Note: The ID-number option checks format, province and birth-date structure only. It does not query a government registry.

Shiha Prestige

Mar 2025 – Oct 2026 · 143 commits

Instalment sales system · Live · shiha-prestige.com

Sales system for an instalment-selling business: orders, field surveys, approval, delivery and monthly collection, with separate screens for head office, regions and sales teams, and Excel import and export.

- Three areas on separate subdomains: head office, region (admin, surveyor, delivery, collector) and sales team, each with its own login.
- An order flow: draft, waiting for survey, verified, approved, delivered, active, completed or rejected.
- Instalment payments, collection assignments, delivery notes and survey reports.

Counted in the repository: 26 models · 33 migrations · 3 separate role areas · 143 commits since March 2025

Stack: Laravel, Livewire, Excel import, Queue workers

Note: Under active refactor; the project's own audit lists places where two approval paths disagree.

KiosPro

Jan 2026 – Nov 2026 · 328 commits

Retail SaaS · retired

Multi-tenant SaaS for phone shops: POS with IMEI-based stock, trade-ins, staff bonuses and returns, a reseller programme with commissions, subscription billing, and a WhatsApp bot. Retired; its scope continues in Serbuu!.

- One Laravel application with five areas: a public site, the shop-owner app, a central admin, a reseller dashboard with its own login, and a mobile REST API.
- POS, stock by IMEI, trade-ins, bonus calculation, payroll, returns and invoice PDFs.
- A reseller and referral engine with commissions, payouts and self-referral detection.

Counted in the repository: 73 model files · 157 migrations · ~199 test files · 328 commits in 2026

Stack: Laravel, Multi-tenant, Midtrans, Expo, WhatsApp bot

Note: Retired: the service has been discontinued and its scope continues in Serbuu!.

ProofRoute

Mar 2026 – Jun 2026 · 106 commits

zkVerify prototype · testnet · Private

Prototype for proving that a delivery was picked up and dropped off without exposing the customer's address or GPS trail, using zero-knowledge circuits, zkVerify and a USDC escrow contract on a test network.

- Four apps: a worker PWA, a merchant console, a bilingual marketing site and the API.
- Two real Circom circuits, one for pickup and one for drop-off, with witness generation and a geofence check.
- Relay code that uses snarkjs and zkverifyjs to submit proofs.

Counted in the repository: ~35 API routes · 2 zero-knowledge circuits · 3 Solidity contracts · 106 commits, March to June 2026

Stack: zkVerify, Circom, Solidity, Base Sepolia, Fastify

Note: A prototype. By default the zkVerify relay is a stub and circuit artifacts are placeholders; the project's own audit rates verification as partial.

Arbitrage Detector

Mar 2026 · 17 commits

Crypto market scanner · private build · Private

Watches prices on eight crypto exchanges through CCXT, finds price gaps that remain after fees, sends Telegram alerts and simulates the trade on paper. It never places real orders.

- Reads order-book prices from eight exchanges through CCXT: Binance, OKX, Bybit, Kraken, KuCoin, Gate, Bitget and Indodax.
- Calculates opportunities net of fees, with freshness checks and de-duplication.
- Sends Telegram alerts.

Counted in the repository: 8 exchanges scanned · 5 services · 20 database tables · 17 commits in 8 days

Stack: CCXT, Fastify, PostgreSQL, pg-boss, Telegram

Note: It never places real orders: scanning, alerts and paper trading only.

Unfold pipeline

Nov 2026 · 23 commits

AI video pipeline · personal tool · Private

A self-built pipeline that turns written scripts into short educational videos with AI-generated images and voice, renders them with Remotion and FFmpeg, and queues them for posting through n8n.

- A local API with 36 routes: render a video from storyboard JSON, produce voice and images, track jobs, manage a weekly content manifest and issue signed download links.
- Renders MP4 with Remotion and FFmpeg in two formats: 1080×1920 and 1920×1080.
- Scripts come from the Claude Code CLI, falling back to Meta's Muse Spark and then to a local Ollama model.

Counted in the repository: 36 API routes · 17 database tables · 140 storyboards · ~36 verification scripts

Stack: Remotion, Claude Code CLI, Meta Muse, n8n, Fastify

Note: A personal, single-user tool built in about a week.

LEARNING AND RECOGNITION

- APOB Boyolali, a Laravel application I built at Look Creative, was named best nationally and honoured by Bank Indonesia.
- Mini Class Django & Vue, Coding.ID · Mar 2022
- Android Flutter Fundamentals, Dicoding Indonesia · Mar 2022

LANGUAGES · OPEN TO

English, Bahasa Indonesia. Remote full-time roles, freelance projects, collaboration.