

JONATHAN ANDREANUS

Software Engineer | Backend, Automation & AI Systems

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SUMMARY

Software engineer with 2+ years of experience building backend systems and production web products. Currently automating banking operations at CIMB Niaga, and technical co-founder of Bukankelas, a Mandarin course platform with 100+ paying students. Recent focus is AI developer tooling, mainly multi-agent orchestration and persistent agent memory over MCP. Works spec-first with AI coding agents (Claude Code, Codex) in parallel git worktrees, and verifies their output with tests and cross-agent review.

PROFESSIONAL EXPERIENCE

CIMB Niaga, Jakarta (Hybrid)

Backend Developer | Full-time | Feb 2026 - Present

- Replaced manual multi-step data extraction and entry for banking operations teams with Automation Anywhere bots, Power Automate flows and Python utilities, scoped by mapping each process's bottlenecks with its operations owners.
- Showed in an R&D benchmark that standalone Playwright completes form-entry and scraping workflows in 36% less time than Robocorp (3.17 s vs 4.94 s median over 101 validated runs, both at 100% field accuracy), on identical workflows in isolated, version-matched environments.

Bukankelas (bukankelas.com), Mandarin course platform, Remote

Technical Co-Founder | Sep 2024 - Present

- Converted 18 of 50 soft-launch webinar attendees (36%) into paying students by building the webinar lead funnel: email nurture in Resend and n8n, then Midtrans checkout on the platform.
- Serve 100+ paying students with 0 payment mismatches since launch, on a platform built and run as the sole engineer: Next.js 14, TypeScript, Prisma/MySQL, Redis, Clerk and Midtrans (QRIS), deployed on a VPS (PM2, nginx) with separate staging and production.
- Closed 7 production security vulnerabilities test-first, and made Midtrans payment callbacks fail closed on forged, duplicate or wrong-amount notifications (timing-safe signature, duplicate and amount checks), backed by atomic paid-state updates and a reconciliation cron.
- Held promo codes to 0 oversells in concurrency and load tests (1,000 simulated buyers racing for 1 slot: exactly 1 winner, 0 errors; 600 virtual users on staging) by reserving each slot inside a Serializable database transaction.

Yamaha Bintang Rejeki Motor, Bandung (vehicle dealership)

Software Developer | Contract | Sep 2025 - Jan 2026

- Shipped the dealer's online shop for its spare parts and accessories on a Medusa.js v2 backend and Next.js storefront (PostgreSQL, Meilisearch, Redis caching for shipping rates, order tracking and payment tokens), covering catalog, inventory, checkout and WhatsApp OTP login (n8n).
- Built checkout shipping and payments as custom Medusa modules: Biteship (rates, draft orders, labels, tracking, webhooks), Midtrans and manual bank transfer, plus pre-orders and product insurance.
- Loaded the catalog in batches, instead of one product at a time, through an Excel bulk import/export with LLM-generated product metadata.

PT Sat Nusapersada Tbk, Batam (On-site)

Full Stack Developer Intern | Feb 2024 - Feb 2025

- Built the Jira-integrated sprint planning app (Odoo, Python) that the company's ERP team used to plan its sprints.
- Upgraded and regression-tested custom modules in the company's Odoo 10 to 17 migration, refactoring their legacy code.

SELECTED PROJECTS

Shared AI Memory, Self-hosted MCP Memory for Coding Agents | Aug - Oct 2026 | *In daily use*

- Gave 4 coding agents (Claude Code, Codex, Hermes, Antigravity) one shared memory layer by deploying the open-source ai-memory server (Rust) on an Oracle Cloud VPS with Tailscale-only access, systemd and token auth.
- Shipped 11 custom patches to production (scope safety, cross-session handoffs, preference learning, cross-project knowledge reuse) with no new failures in upstream's test suite, and kept backup and rollback ready for the cutover.

Nura, AI Builder Cup 2026 (Google, hack2skill) | Sep - Oct 2026 | *Team of 3*

- Co-built a voice-first care companion for older patients and caregivers: voice meal and medication reporting, RAG over care instructions, reminders and a caregiver dashboard (Next.js 16, FastAPI, Gemini 2.5 Flash-Lite, Firestore, Google Cloud Run).
- Built the meal and medication schedule (due, late and missed states, with in-app caregiver notifications), made new care instructions wait for caregiver confirmation before use, and deployed the app to Cloud Run with Firestore and an OIDC-verified Cloud Scheduler job for reminders.
- Added Playwright checks at 4 screen widths with axe accessibility scans (0 violations), expanded the backend test suite, and fixed Gemini 429 rate-limit handling.

Also built: Rove, a native macOS workspace where Claude Code, Codex and Hermes run side by side, with Claude Code and Codex linked over MCP (Swift 6.2, AppKit, pre-release); Hermes Swarm, a multi-agent orchestration CLI with a Tauri 2 companion app (Python, prototype); Emit, a push-to-talk dictation app with Groq, OpenAI-compatible and local whisper.cpp fallback (self-signed v0.1.0).

EDUCATION

BINUS University, Bachelor of Computer Science, Software Engineering

Sep 2021 - Sep 2025 | GPA 3.37 / 4.00

Thesis: vehicle stock demand forecasting with SARIMAX, built as a Django web app with scheduled Celery + Redis jobs and inventory recommendation views.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, SQL, Swift, Rust

Backend & Web: Node.js, Next.js, React, FastAPI, Django, Medusa.js, Prisma, REST APIs, Tailwind CSS, Odoo

Data & Infrastructure: PostgreSQL (pgvector), MySQL, Redis, Docker, Linux VPS (nginx, PM2, Caddy, systemd), Tailscale, Cloudflare R2, Google Cloud Run, Oracle Cloud, GitHub Actions

AI & Automation: Multi-agent orchestration, MCP servers, RAG, Gemini API, speech-to-text (Whisper, Groq), Automation Anywhere, Power Automate, Playwright, n8n

Testing: Jest, Vitest, Playwright, pytest, TDD, load and concurrency testing

Desktop: AppKit, SwiftTerm, Tauri 2

Integrations: Midtrans (QRIS), Biteship, Clerk, Resend, Meta Conversions API, GA4

Forecasting: SARIMAX, statsmodels, pandas