

Muttaqin Muzakkir

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Software Engineer strongest in backend/full-stack systems, infrastructure, and applied AI workflows. Comfortable owning ambiguous engineering problems end-to-end across system design, integrations, data modeling, observability, and deployment.

Education

Universitas Indonesia | Bachelor of Computer Science Depok, Indonesia | 08/2023 – Present

- **Related courses:** Web Architecture & Applications, Product Development, Advanced Programming, Artificial Intelligence, Technopreneurship
- **Project Director** @ [Open House Fasilkom UI](#), directed a 165+ person team to deliver a faculty-wide event for 800+ attendees (95% satisfaction rate).
- **Mentor** @ [DDPO](#), guiding first-year students through core programming concepts, and best practices to build strong technical foundations early.

Professional Experiences

Software Engineer (Full-stack) @ Pikira Depok, Indonesia | 03/2026 - Present

- Building Pikira, an AI-native teacher workspace used by 3 schools in private beta for lesson preparation, classwork workflows, and AI-assisted grading.
- Shipped per-school AI quota and permissions enforcement using Cloudflare Durable Objects and idempotent reservations, blocking unauthorized or over-budget provider calls before AI usage.
- Implemented internal tooling to seed dynamic realistic school scenarios, impersonate teacher/admin roles, and generate E2E fixtures, improving quality assurance speed by 30% during development.

Software Engineer (Full-stack) @ Universitas Indonesia | Game Based Assessment (Grant-funded Team) Depok, Indonesia | 01/2026 - 05/2026

- Implemented blue/green deployments on Google Cloud Platform for a game-based assessment platform used in data collection with 600+ live users from WIKA and KAI, reducing hotfix rollout time to ~5 minutes with no downtime.
- Built a game-to-browser Sentry bridge that attached session context, idle diagnostics, and connection-failure telemetry to structured error events, exposing previously hidden critical bugs during beta testing.
- Reduced validity-study preparation from ~3 hours to minutes by building an async export engine that normalized raw gameplay events and survey responses into SPSS-ready reports.

Software Engineer (Full-stack) Intern @ Aiccountant Remote | 11/2025 - 01/2026

- Built a client-side encryption layer for locally stored sensitive data and integrated it with the existing envelope-encryption architecture, addressing a Google CASA compliance requirement ahead of launch.
- Replaced polling with a real-time Gmail sync pipeline using Pub/Sub push, allowing users to see live inbox data during onboarding and reducing user time-to-first-value by an estimated 40%.
- Shipped 5+ production customer-facing features including referral flows, bulk transaction editing, and shareable monthly insights pages.

Software Engineer (AI/ML) Intern @ Hiff AI Remote | 08/2025 - 11/2025

- Built a multi-stage Gemini Vision extraction pipeline that converted a dense BRM document containing 400+ trademarks into a lawyer-ready legal review report, replacing hours of manual document skimming.
- Built a Gemini 2.5, FastAPI, and React trademark similarity POC used in client demos to validate an AI-assisted review workflow.

Freelance/Client Projects

Lead Software Engineer (Full-stack) @ Worktive Lab Jakarta, Indonesia | 01/2026 - 04/2026

- Designed a fail-open Google Calendar sync system for a 3-role booking platform, using Postgres as the source of truth with outbox-backed async delivery and webhook verification.
- Implemented concurrency and schedule-integrity safeguards for core booking flows, including slot reservation, confirmation, rescheduling approval, and calendar sync failure handling to prevent double-bookings and inconsistent session states.
- Translated ambiguous client requirements into a delivery-ready product and engineering spec covering booking states, admin approval flows, UI behavior, backend contracts, and external Calendar failure modes.

Lead Software Engineer (Full-stack) @ National Ministry of Labour Jakarta, Indonesia | 04/2025 - 07/2025

- Reduced reporting workflow from ~2 days to a few minutes by building the core pipeline of a stress-visualization tool with Django, deployed on a GCP VM for stakeholder access.
- Standardized 1,500+ of 2,400 scattered survey records from ~50 companies across 6 sectors using text normalization and fuzzy matching, enabling cleaner cross-sector analysis for users.
- Containerized the data ingestion and analysis pipeline with Docker, reducing deployment time and configuration errors by an estimated 30% and standardizing the environment for all government stakeholders.

Lead Software Engineer (Full-stack) @ KOMPeK FEB UI Depok, Indonesia | 04/2025 - 07/2025

- Built committee-facing admin workflows for registration monitoring, payment verification, analytics dashboards, and CSV exports, enabling organizers to manage 500+ teams and their payment proofs from a single operations dashboard.
- Designed secure submission and document pipelines with AWS S3 presigned uploads, JWT-gated access, and protected file retrieval, handling 400+ competition deliverables across participant and committee workflows.

Campus Projects

Anotasi.ai | Web Architecture & Applications Capstone 05/2026

- Shipped end-to-end observability for a FastAPI/Next.js ML platform using OpenTelemetry, Jaeger, Prometheus, Grafana, Docker, Helm, and Kubernetes.
- Led Kubernetes rollout by refactoring Helm charts, fixing migration/image/proxy blockers, and validating live E2E access, metrics, traces, auth, and dashboards.

Achievements

AI Youth Leader at [LoveFrankie](#). Chosen as the speaker representative to present AI policy solutions to national ministry policymakers including Komdigi and Google Indonesia representatives. Jakarta, Indonesia | 06/2025

Skills

- **Frameworks, Stacks:** Express.js, Nest.js, Java Springboot, Django, Flask, FastAPI, Flutter, PostgreSQL, MongoDB, Firebase, Bun, PowerSync
- **Programming Languages:** JavaScript, TypeScript, SQL, Python, Java, Go, Dart
- **API, Third Party Tools:** OpenAI, Gemini API, Cloudflare Agents SDK, Discord Bot, Figma, Claude SDK
- **AI Engineering:** LLM Integration, AI Agent Development, MLOps, Model Fine-Tuning