

ZEIN HAMMAD MARHABAH

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PROFESSIONAL SUMMARY

Software Engineer with 7+ years building platform-level frontend systems for multi-tenant B2B SaaS and regulated fintech, specialized in TypeScript, React, and Next.js. Deep experience in schema-driven UI engines, OpenAPI-to-typed-client codegen, and routing/data-loading architecture, and I have led a frontend squad end to end. Now deliver full-stack through an AI-native workflow, directing coding agents (Claude Code over MCP) across the cycle while owning architecture, security, and code quality.

EDUCATION

STMIK Antarbangsa | Undergraduate - Computer Science (2020-2022)

WORK EXPERIENCE

Fullstack Engineer | Tamakun (Auto Mobility / Best Shield)

August 2026 - Present | Riyadh

Part-time

Part of an AI-native team where agentic AI is built into the whole delivery cycle. Claude Code is wired to our internal engineering platform via MCP, so an agent picks up an assigned task with its full project context, writes the code and tests, reads real CI and production logs when debugging, and opens a PR for human review. I direct and review the agent's work, set its guardrails through rule files and reusable skills, and remain accountable for architecture, security and code quality.

AutoConnect (primary engineer)

A multi-tenant omnichannel messaging hub where each store connects its social and messaging accounts once (WhatsApp, Messenger, Instagram, X, TikTok, Snapchat, SMS, email), and every other company app uses one unified API.

- Primary engineer (~80% of commits): built it from a stripped boilerplate to a deployed platform, with a code-driven channel-capability registry so adding a platform is a descriptor plus a connector.
- Designed a connector framework and shipped 7 platform connectors, including OAuth 1.0a implemented from the RFC (X) and multi-number WhatsApp routing.
- Built an AES-256-GCM credentials vault with a distributed-lock token-refresh worker, an OAuth2 machine-token platform with per-store/per-channel grants, and an idempotent unified send API over a transactional outbox.
- Ran the pre-launch security audit (privilege-escalation, SSRF, and TLS-downgrade fixes), implemented entity-scoped CASL RBAC and passwordless OTP login, and delivered the Arabic/RTL-first dashboard.

AutoTicket

- Owned the escalation and supervisor workflows: split the supervisor role into tickets vs escalation supervisors, added cross-department routing rules, and fixed inbound-reply and note-routing bugs.

AutoChat

- Made AutoChat the first production consumer of AutoConnect via a per-channel routing flag, and scoped performance KPIs per team to stop cross-team skew.

AutoSend

- Made campaign send-flows runnable with step validation, and fixed channel-secret masking to obey the read contract so ciphertext no longer leaked back to the client.

WhatsApp edge service

- Added Meta X-Hub-Signature-256 verification to the legacy PHP webhook edge, shipped behind a flag for a safe rollout.

Tech stack: TypeScript, NestJS, Next.js (App Router), PostgreSQL, TypeORM, Redis, RabbitMQ, Docker, CASL, OAuth 2.0/1.0a, Tailwind, shadcn/ui, next-intl, Playwright, GitHub Actions

Senior Web Engineer | PT Ajaib Sekuritas Asia

March 2026 - June 2026 | Jakarta

Contract via Accord Innovations

- Delivered 5+ operator-facing features across Primary Bonds, US Stocks, and Mutual Funds domains (SID Generation, Alpaca Money Movement, MF Processing Flow), reducing manual ops effort on regulated financial workflows.
- Built customer-facing US Stocks components inside Ajaib's mobile app webview, shipping UI across the web-in-native boundary in the live product.
- Cut the ops account landing page load time by refactoring the render strategy and tuning the Next.js configuration.

Tech stack: TypeScript, React, Next.js, Jenkins

Lead Frontend Engineer | Hyperscal

July 2025 - March 2026 | Jakarta

Contract via TOGI

A multi-tenant B2B SaaS business-support platform where organizations model sub-tenant entities with physical sites and nestable teams, and run case management, knowledge management, workforce/shift management, email-to-case, multi-channel messaging, and RBAC on top.

- Led the frontend architecture: the Remix and React Router v7 (SSR) migration with RFC-driven flat-routes restructuring, schema-first DataView/form adoption, the OpenAPI typed-client codegen strategy, and the RBAC model (a single server-side permission prefetch cached in React Query, with synchronous access checks).
- Built the in-house schema-first DataView engine: it renders Table/Tree/List/Expandable views from a backend-served schema with sorting, pagination, persisted column settings, bulk actions, and custom cell renders, so the team ships dozens of consistent CRUD screens without manual column definitions.
- Built a config-driven form generator (~19 field types with array/group nesting and a grid layout) and a schema-independent filter/query-criteria builder that composes rules into TanStack Query keys.
- Set up the auto-generated typed API SDK from OpenAPI specs (kubb): ~5,000 generated files where types flow spec → DTO → client → Query hooks, giving compile-time safety from the network boundary into components.
- Built the organization and entity-management domain end to end (teams, sites, contacts, policies, permissions, email-to-case, messaging templates, shift/workforce config), plus auth flows (login, MFA/OTP, recovery, invitations) and the activity-log system.
- Established the Playwright end-to-end testing strategy (BDD-style Page Object Model, role-based auth setup, multi-worker isolation, CI retries, trace capture), and managed the team's workload reporting to the CTO, delivering the platform ahead of the parent-company deal renewal.

Tech stack: TypeScript, Remix, React Router v7, TanStack Query/Table, kubb, Playwright, AWS, Turborepo, Tailwind, Storybook

Frontend Engineer | SERA (Serasi Autoraya) by Astra International

November 2023 - July 2025 | Jakarta

Contract

- Built car-rental and bus-rental web applications from scratch in Next.js under the TRAC brand, delivering end-to-end booking and payment flows.
- Architected a monorepo spanning car rental, bus rental, airport transfer, and attractions, with a shared component and utility library for UI consistency.
- Integrated TRAC services into Bank Mandiri's Sukha super-app, implementing RSA encryption to secure the payment payload and API handshake.

Tech stack: TypeScript, Next.js, Redux, Nx monorepo, Jenkins

Frontend Engineer | Tokenomy by Indodax

April 2021 - November 2023 | Jakarta

Full-time

- Developed and maintained the Tokenomy dashboard: investment submission (fixed deposits, staking, dual currency), crypto loans, exchange transactions, and TradingView/WebSocket contract markets.
- Improved GTmetrix and PageSpeed scores by optimizing API calls and refactoring render cycles, reducing LCP and CLS.
- Built an in-house design system and component library with Storybook, and handled Sentry/Jenkins monitoring and code review.

Tech stack: TypeScript, React, Redux, Storybook, WebSocket, Sentry, Jenkins, React Testing Library, Tailwind

Frontend Engineer | CODEX powered by Telkom Indonesia

June 2020 - April 2021 | Jakarta

Frontend Engineer | PT Sama Satu Jalan (Tebengan)

November 2019 - May 2020 | South Tangerang

Web Developer (Internship) | Garena Indonesia

August 2019 - November 2019 | Jakarta

FREELANCE & CLIENT PROJECTS

Fullstack Engineer | RedSquare Software MY

February 2026 - July 2026 | Kuala Lumpur

*Contract***Trader Compass**

A trading journal and analytics platform for forex and crypto traders, with automatic trade syncing, performance reports, an AI trading coach, an economic calendar, and community features (gurus, competitions, leaderboards).

- Redesigned the trading performance report, frontend and backend: balance and drawdown charts, trade heatmap, trade history, absolute gain, max drawdown and pips calculations.

- Built public shareable reports with a blurred teaser gate for visitors who aren't logged in.
- Made the app mobile responsive and turned it into an installable PWA (Progressive Web App).
- Added Chinese localization, a referral page, a list-view economic calendar, and a Polymarket price-history integration.

ForteFi

A digital investment and fund management platform for the Malaysian market, covering KYC onboarding (NRIC, SSM company data, World-Check screening), risk assessment, recommended fund portfolios, and an admin portal for orders and NAV reconciliation.

- Built the full landing page rapidly by connecting Figma, Framer and Claude Code via MCP.
- Improved automated KYC compliance documents: updated the World-Check screening section of the board resolution document the backend generates.
- Improved corporate client onboarding: pre-filled beneficial owners and controlling persons from Malaysia's company registry (SSM) data, so users no longer enter them by hand.
- Improved onboarding validation and UX: stricter input format rules, a smoother NRIC input for individuals, and a cap on nature-of-business entries enforced in the database schema (Prisma migration).

Tech stack: React, TypeScript, Vite, TanStack Query, Zustand, Tailwind CSS, shadcn/ui, Recharts, TradingView Lightweight Charts, Framer, NestJS, Fastify, TypeORM, Prisma, PostgreSQL, Redis, Socket.IO, Puppeteer, OpenAI API, Stripe, AWS (S3, CodeDeploy), Railway

Fullstack Engineer | Cut and Go Grand Mall Batam

August 2025 - November 2025 | Batam

Contract, maintained to date

An IoT self-service barbershop system that I took from early exploration to live production in about 3 months, where it has processed thousands of paid orders, built so the client could leave a franchise platform and stop paying its fees and revenue share. The system controls the power at every station through a Raspberry Pi, so equipment runs only for a recorded, paid order and every power event is logged.

- Built the platform from scratch: monorepo architecture, authentication, role-based access, and dashboards for admin, supervisor and hairstylist.
- Integrated Raspberry Pi station controllers (IoT) so equipment power follows each order and its service time, with power-usage logs for auditing.
- Built fraud-prevention controls: void-request approvals, attendance with selfie verification, and payment rules enforced on the server for cash and QRIS (Midtrans).
- Built a reporting suite for sales, transactions, orders and attendance, with Excel export, so owners can see revenue and each hairstylist's performance.
- Delivered a kiosk and dashboard in Indonesian and English that work on mobile.

Tech stack: TypeScript, React, Vite, TanStack Router/Query/Form/Table, oRPC, Zod, Hono, Better Auth, Drizzle ORM, PostgreSQL, Tailwind CSS, shadcn/ui, Recharts, Midtrans (QRIS), Raspberry Pi (IoT), Docker, Railway, Turborepo

SKILLS

Frontend: JavaScript/TypeScript, React, Next.js, React Router v7, Remix, HTML/CSS, SCSS, Tailwind, shadcn/ui, Material UI, Ant Design, Storybook

State & Data: Redux, Zustand, Zod, TanStack Query, REST/GraphQL, WebSocket, kubb OpenAPI codegen

Backend: Node.js/Express, Nest.js, PostgreSQL, MongoDB

Testing: Jest, React Testing Library, Playwright, Vitest

Tooling & DevOps: Nx, Turborepo, CI/CD (Jenkins, GitHub Actions), Sentry, Vercel/Netlify/Railway

Architecture & AI: schema-driven and event-driven UI architecture, AI-assisted coding (Claude Code/MCP, Cursor)

Soft Skills: Technical Leadership, Frontend Architecture, Problem Solving, Cross-functional Collaboration, Agile/Scrum

Languages: Indonesian (Native), English (B2)

CERTIFICATIONS & TRAINING ([view all](#))

- Full Stack JavaScript Bootcamp by Impact Byte (2019)
- Indonesian Scrum Master by Ekipa (2021)