Hary Arrahman

Senior Software Engineer · Full-Stack Developer

haryarrahman14@gmail.com · Jakarta, Indonesia · linkedin.com/in/hary-arrahman · github.com/haryarrahman14

PROFESSIONAL SUMMARY

Full-Stack Software Engineer with 5+ years of experience building and scaling web applications across SaaS, fintech and banking, edtech, and HR tech. Senior engineer on MapTrack's asset-management app and founding engineer of BOS, its internal CRM and business operating system: BOS replaced HubSpot as the system of record, reconciles billing against Xero, and runs agentic AI through MCP, with a person approving what agents draft. Strong across the stack — Next.js, React, Vue, TypeScript, Node.js, and PostgreSQL/Supabase — and AI-native day to day, with Claude Code as the primary development environment.

PROFESSIONAL EXPERIENCE

MapTrack

Remote · Australia | Aug 2024 – Present

maptrack.com

Senior Software Engineer, Product (Apr 2025 – Present) · Software Engineer, Product (Sep 2024 – Apr 2025) · Software Engineer (Aug 2024 – Sep 2024)

Core product — *asset management platform*

- Own and deliver end-to-end product features, from technical planning to implementation and release.
- Work directly with the CTO to translate product and business priorities into scalable technical solutions.
- Built the drag-and-drop Form Builder and original Form Renderer on a teammate's forms backend, with conditional logic, repeatable sections, and runtime validation.
- Built the data-table toolkit: nested filters, saved views, inline row editing, and bulk edit.
- Built the CSV and Excel import wizard with column mapping and failed-row reports.
- Built the first versions of the transactional email service and most of its templates.
- Ship features on the team's RxDB offline mode: they work without a connection and sync back.
- Improved UX with unsaved-change warnings and thumbnail previews, and fixed form-validation edge cases.

Tech: Next.js, TypeScript, Supabase, PostgreSQL, RxDB, PWA, TanStack Table, AWS SES, Deno, GitHub Actions, Playwright, Vitest, Storybook, SonarQube, CodeRabbit

AI — *live in the app*

- Co-built the first version of AI asset creation from photos, using LLM structured output: the add-asset form fills in a category and custom field values for a person to review.
- Built the client-side image compression behind the app's photo AI. Also live, from the team: part prefill from photos, forms and procedures from documents, and meter and serial reading from the camera.

Tech: LLM structured output

IoT, native app & public API — *IoT live, the rest in development*

- Surfaced GPS tracker data on the web map. Also live, from the team: asset telemetry and device status.
- Building a React Native and Expo phone app, not yet released, with tag scanning, forms, and offline sync.
- Co-building an AI apps connector over MCP under the user's permissions, and extending the public REST API.

Tech: IoT, MapLibre, React Native, Expo, SQLite, MCP, REST APIs

BOS — *internal CRM & business operating system · founding engineer*

- Built BOS from the ground up as the CRM and operating system MapTrack's sales, ops, and finance teams run on daily, owning architecture, data model, and delivery end to end.

- Built agentic AI into BOS: agents draft email replies, meeting recaps, follow-ups, CRM fixes, and first outreach into a human approve/reject queue. Only the app sends, and an owner kill switch stops them.
- Built the MCP server behind them (~60 tools), with a Postgres job queue fed by new emails, calls, and notes.
- Replaced HubSpot as the system of record: migrated 7,400+ records at go-live with custom-field and contact-relationship mapping, with a leads webhook that deduplicates by email and matches companies by domain. BOS now holds 47,000+ emails and 13,000+ leads.
- Built Billing Health for finance to replace a hand-kept spreadsheet: it reconciles Xero invoices against expected MRR per customer to flag under- and over-billing, with remarks and sign-off, and handles non-monthly billing and mid-year MRR changes.
- Built the foundation of Product Usage: an hourly pull of MapTrack account usage into BOS, showing who to call and who's at risk.
- Built Gmail and Google Calendar sync, designed a provider-agnostic mailbox adapter around Google's restricted-scope (CASA) requirements, and integrated call transcription (JustCall, Bluedot).
- Improved performance and security: deduplicated redundant auth calls, added global record search with trigram GIN indexes on generated columns, and set up least-privilege read-only database access for stakeholders.
- Ship daily with AI coding agents (Claude Code): custom skills and semi-autonomous runs reviewed at PR.

Tech: Next.js, TypeScript, Supabase, PostgreSQL, shadcn/ui, Vercel, MCP, Agentic AI, Xero, Stripe, GoCardless

BTPN Syariah
Jakarta, Indonesia · Hybrid | Mar 2025 – Dec 2025

btpnsyariah.com

Fullstack Developer

- Developed full-stack features for an internal customer-support application in an enterprise banking environment.
- Contributed to backend service implementation and frontend integration.
- Worked on enterprise-grade application development within a regulated banking environment.

Tech: Vue.js, Java, Spring Boot

Bosshire
May 2024 – Aug 2024

bosshire.co.id

Frontend Engineer

- Built and delivered a Job Fair Event feature.
- Improved Lighthouse performance score from **30 to 80+** within two months.
- Migrated the platform from Next.js 12 to 14 and from Pages Router to App Router.
- Optimized caching and data fetching with reusable React Query hooks, and converted images to WebP.
- Maintained a Lighthouse SEO score of **92/100** through targeted SEO improvements.

Tech: Next.js, TypeScript, React Query, SEO, Web Performance Optimization

Edufund
Jakarta, Indonesia · Hybrid | Oct 2023 – May 2024

edufund.co.id

Fullstack Web Developer (Mar 2024 – May 2024) · Frontend Web Developer (Oct 2023 – Mar 2024)

- Developed backend and full-stack features in Go, working with PostgreSQL, MySQL, Hasura, and GraphQL-based services.
- Migrated frontend applications from Angular to Next.js within three months and built a new Next.js application from scratch, including authentication, layout structure, and core UI components.

Tech: Go, PostgreSQL, MySQL, Hasura, Apollo GraphQL, TypeScript, Next.js, Angular, React.js, Tailwind CSS, REST APIs, Material UI

Happy5 Jakarta, Indonesia | Apr 2021 – Sep 2023

happy5.co

Frontend Web Developer (Feb 2022 – Sep 2023) · Frontend Engineer Intern (Apr 2021 – Feb 2022)

- Migrated styling from Styled Components to Tailwind CSS for better maintainability.
- Built Cypress end-to-end tests to improve reliability, and resolved production issues reported through Sentry.
- Implemented client-side WebSocket features for real-time interactions and Amplitude event tracking.
- Created PDF templates and Storybook documentation, and built reusable React Query hooks.
- As an intern, migrated React class components to function components and supported the TypeScript migration.

Tech: TypeScript, JavaScript, Styled Components, Cypress, Sentry, Amplitude, React.js, Tailwind CSS, WebSocket, Storybook, Zustand

FREELANCE & CONTRACT

Web Developer — Freelance Japan & Indonesia | Sep 2022 – Present

- Delivered web applications for clients across Japan and Indonesia, from UI implementation to backend integration.
- Selected projects: JA Hakui Attendance System (JP), Catering System for Doi Masaru (JP), My Siloam (ID).

Tech: TypeScript, JavaScript, Next.js, React.js, Tailwind CSS, Material UI, React Query, Figma

Mycelium Network Remote | Feb 2025 – Nov 2025

myceliumnetwork.io

Software Engineer · Freelance

- Developed web application features using Next.js and modern full-stack technologies.
- Built interactive frontend experiences and integrated blockchain-related tooling.

Tech: Next.js, tRPC, MongoDB, Fabric.js, Wagmi

PROJECTS

Penawaranku — AI Cost-Estimation (RAB) Document Generator Final-Year Thesis · 2025 – 2026

penawaranku.my.id

- Built an AI system that generates drilling-operation cost-estimation (RAB) documents using a hybrid RAG pipeline with a two-phase flow — an AI draft, then confirm & save, with prices from a material database.
- Combined pgvector embeddings and full-text search to produce structured, reference-grounded documents with DOCX/PDF export; delivered under Scrum with defined NFR/SLA targets.

Tech: Next.js, Supabase, pgvector, RAG, OpenAI API, text-embedding-3-small, Vercel AI SDK, Tavily, AWS Lambda, Gotenberg

Arsip Cetak — Multi-Tenant SaaS for Print Shops Side Project · 2026 – Present

arsipcetak.web.id

- Building a multi-tenant SaaS for print shops (inventory & invoicing), in development, with cost-efficient infrastructure designed to scale across many tenants.

Tech: Next.js, Supabase, Docker, Cloudflare R2, Gotenberg

EDUCATION

BINUS Online — Bachelor of Information Systems Aug 2022 – Dec 2026 (expected) · GPA 3.94 / 4.00

- Projects: MVC web applications (PHP/MySQLi), Java desktop apps, UI/UX (Figma), data scraping (Selenium).

SMK Negeri 26 Jakarta — Computer Systems, Networking & Telecommunications 2018 – 2022

- Leader of the Intra-School Student Organization (OSIS), 2019 – 2020.