Hary Arrahman

Applied AI Engineer · Senior Product Engineer

Available now · Remote or Jakarta

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

PROFESSIONAL SUMMARY

Senior product engineer, full-stack, with 5+ years of experience building and scaling web applications across SaaS, fintech and banking, edtech, and HR tech.

Until Nov 2026 I worked on the MapTrack app and was the founding engineer of BOS, its internal CRM. I work across Next.js, React, Vue, TypeScript, Node.js and PostgreSQL, building with AI agents, MCP and RAG, with Claude Code as my main development environment.

TECHNICAL SKILLS

Frontend	TypeScript, React, Next.js, TanStack Start, Vue, Angular, Vite, Tailwind CSS, Material UI, shadcn/ui, Radix UI, React Query, TanStack Router, TanStack Table, Zustand, GSAP, MapLibre
Mobile	React Native (in development, not released), Expo (in development, not released), PWA, SQLite (in development, not released), RxDB
Backend & data	Node.js, NestJS (in development, not released), Go, Spring Boot, PostgreSQL, Supabase, Neon (in development, not released), MySQL, MongoDB, GraphQL, Hasura, tRPC, Xero
AI	OpenAI API, Vercel AI SDK, MCP, RAG, pgvector, Tavily, JustCall, Bluedot
Infra	AWS SES, AWS Lambda, Deno, pgmq, pg_cron, React Email, Docker, GitHub Actions, Turborepo, pnpm, Vercel, Cloudflare, Cloudflare Workers, Cloudflare R2, Gotenberg
Quality	Playwright, Vitest, Cypress, pgTAP, Storybook, Sentry, SonarQube, Biome, CodeRabbit, Lighthouse

PROFESSIONAL EXPERIENCE

MapTrack

Aug 2024 – Nov 2026

Remote · Australia · Full-time · maptrack.com

Senior Software Engineer, Product, Apr 2025 – Nov 2026 · Software Engineer, Product, Sep 2024 – Apr 2025 · Software Engineer, Aug – Sep 2024

Senior engineer on MapTrack's asset-management app, and founding engineer of BOS, the internal CRM that replaced HubSpot.

The app · Shipped, on the asset-management platform

- Built the drag-and-drop Form Builder and the original form renderer, on a teammate's backend.

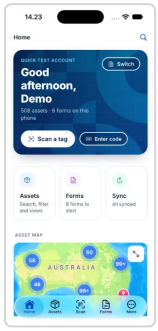
- Added conditional logic and repeatable sections, from the builder to the exported PDF.
- Built the data-table toolkit: nested filters, saved views, inline row editing, bulk edit.
- Built the first versions of the transactional email service and most of its templates.
- Built the CSV and Excel import wizard: column mapping, row errors, failed-row reports.
- Also live, from the team: offline mode on RxDB, which my features run on.

Tech: Next.js, TypeScript, Supabase, PostgreSQL, RxDB, PWA, Storybook, SonarQube

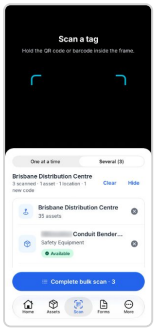
Native app · *in development, not released*

- React Native phone app with offline sync, tag scanning, forms, audits and device telemetry.

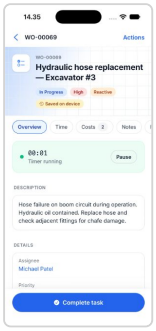
Tech: React Native, Expo



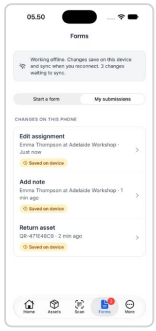
Home. In development, test data.



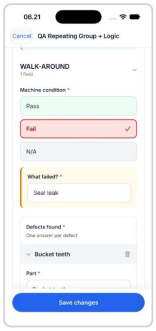
Scanning several tags at once. In development, test data.



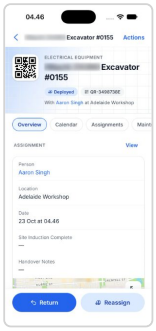
Work order with a running timer. In development, test data.



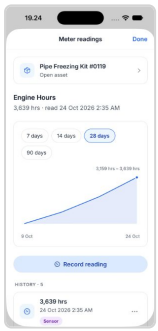
Working offline, changes waiting to sync. In development, test data.



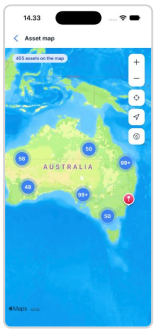
Conditional logic and repeatable sections. In development, test data.



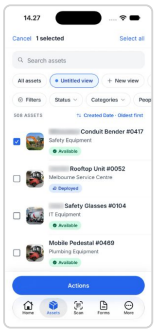
Asset page with its tag and assignment. In development, test data.



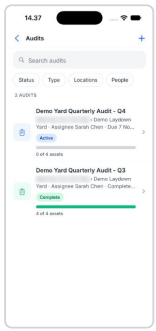
Meter readings trend. In development, test data.



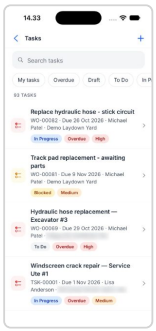
Asset map. In development, test data.



Assets list, selecting for bulk actions. In development, test data.



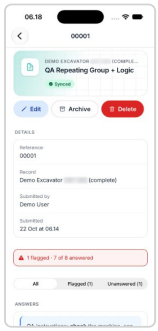
Audits with progress. In development, test data.



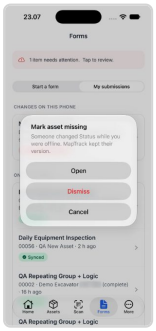
Work orders and tasks. In development, test data.



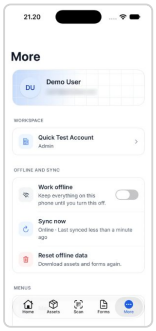
Asset overview on the phone. In development, test data.



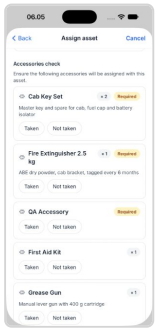
Submitted form with flagged answers. In development, test data.



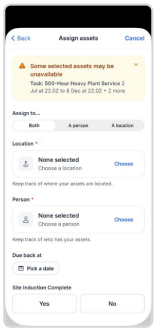
Sync conflict after working offline. In development, test data.



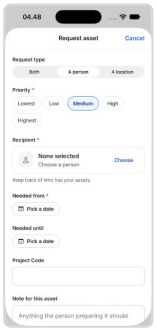
Offline and sync controls. In development, test account.



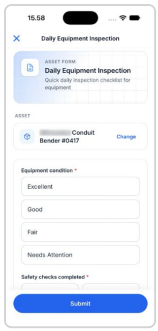
Accessories check when assigning. In development, test data.

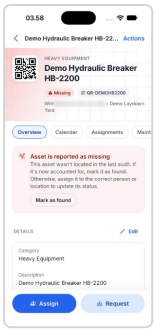


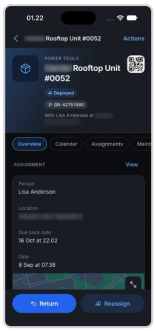
Assigning, with an availability warning. In development, test data.

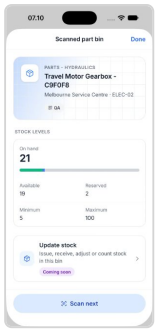


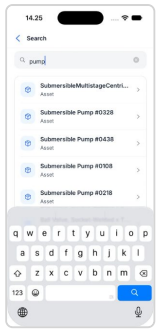
Requesting an asset. In development, test data.

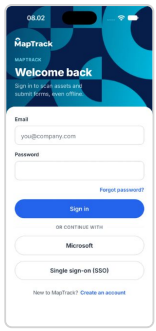

Inspection form. In development, test data.


A missing asset. In development, test data.


Dark theme. In development, test data.

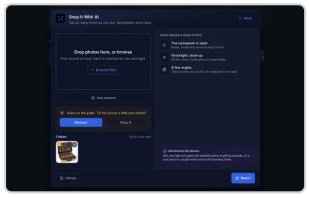

Scanned part bin with stock levels. In development, test data.

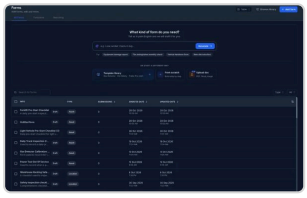

Global search. In development, test data.


Sign in. In development.

AI

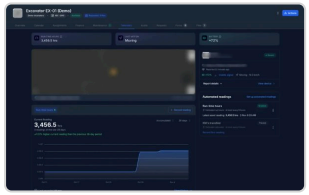
- Co-built the first version of Snap It With AI. A person reviews it.
- Also live, from the team: parts from photos, forms from documents, meter reading.

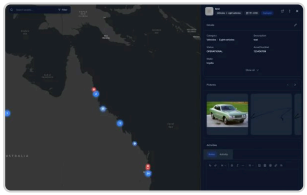

Snap it with AI: glare is caught first. Test account.


A form drafted from plain English or an uploaded document. Test account.

IoT

- GPS tracker data on the web map, in a popover on each pin.
- Also live, from the team: telemetry on each asset, device status, automated readings.


Telemetry on a demo asset. Its location is blurred.


The map, with an asset open. Test account.

Next · *in development, not released*

- AI apps connector over MCP, under the signed-in user's permissions. Co-built with a teammate.
- Wider Public API: more record types and workflow actions.

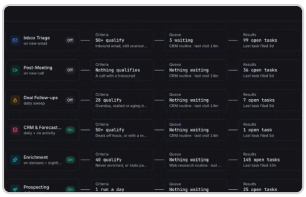
Tech: MCP

BOS · Internal CRM built with Claude Code to replace HubSpot · founding engineer

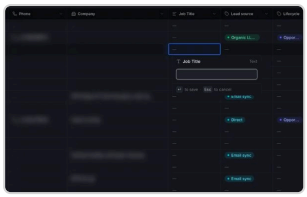
- Agentic AI over MCP: agents draft emails, a person approves, only the app sends.
- Product Usage pulls MapTrack usage into BOS: who to call, who's at risk.
- Billing Health for finance, built to replace a spreadsheet, checks expected billing against Xero.
- Replaced HubSpot: migrated 7,400+ records at go-live.

Key figures: 47,000+ emails in BOS today · 13,000+ leads in BOS today · ~60 MCP tools for AI agents in BOS

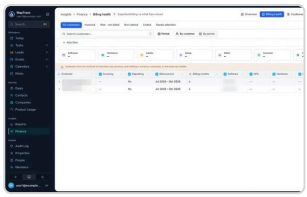
Tech: Next.js, TypeScript, Supabase, PostgreSQL, shadcn/ui, Vercel, MCP, Xero



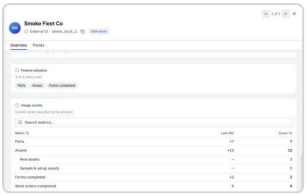
Every agent's workflow: what it looks for, what's waiting, what it filed.



Contacts: edit any cell in place. Customer details blurred.



Billing Health: expected billing against Xero. Test data.

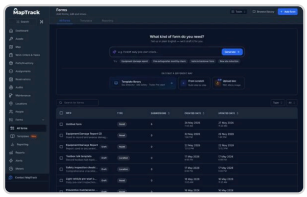


Product Usage for one account. Test data.

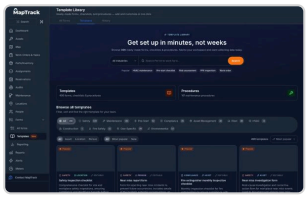
Stack: Next.js, TypeScript, Supabase, PostgreSQL, PWA, Storybook, SonarQube, MCP, shadcn/ui, Vercel



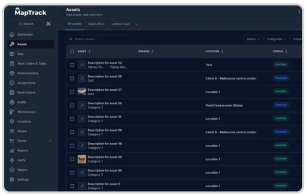
The asset map. Test account.



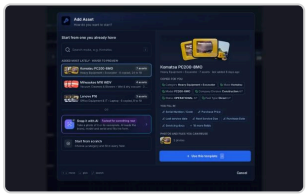
Forms, where the Form Builder starts.



The form template library.



Assets table with filters and saved views.



Add Asset: reuse one, or snap it with AI. Test account.

More: haryarrahman.tech/experience/maptrack

BTPN Syariah

Mar – Dec 2025

Hybrid · Jakarta · Full-time · btpnsyariah.com

Fullstack Developer, Mar – Dec 2025

Full-stack features for an internal customer-support application in a regulated bank.

- Contributed to backend services and frontend integration.

Tech: Vue, Java, Spring Boot

Stack: Vue, Java, Spring Boot

More: haryarrahman.tech/experience/btpn-syariah

Bosshire

May – Aug 2024

Full-time · bosshire.co.id

Frontend Engineer, May – Aug 2024

Lighthouse performance from 30 to 80+, a Next.js 12 to 14 App Router migration, and a job-fair feature.

Key figures: 30 → 80+ Lighthouse performance, within two months · 92/100 Lighthouse SEO, maintained

- Migrated the platform from Next.js 12 to 14 and Pages Router to App Router.
- Optimized fetching with reusable React Query hooks, and moved images to WebP.

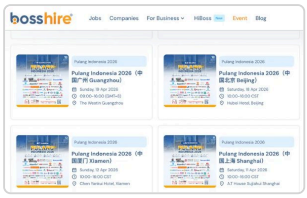
- Built and delivered a job-fair feature.
- Maintained a Lighthouse SEO score of 92/100.

Tech: Next.js, TypeScript, React Query, SEO, Web performance

Stack: Next.js, TypeScript, React Query, SEO, Web performance



bosshire.co.id today: a 2026 job-fair page.



bosshire.co.id today: the events list.



bosshire.co.id today: the 2025 job fair, on a phone.

More: haryarrahman.tech/experience/bosshire

Edufund

Oct 2023 – May 2024

Hybrid · Jakarta · Full-time · edufund.co.id

Fullstack Web Developer, Mar – May 2024 · Frontend Web Developer, Oct 2023 – Mar 2024

From frontend to full-stack: migrated Angular applications to Next.js within three months, then built backend features in Go.

Key figures: 3 months Angular → Next.js migration

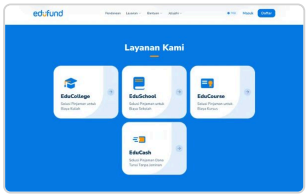
- Built backend and full-stack features in Go, on PostgreSQL, MySQL, Hasura and GraphQL.
- Built a new Next.js application from scratch: authentication, layout and core UI.
- Integrated applications across Angular and Next.js with reusable components.

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

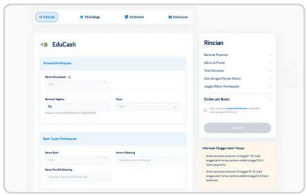
Stack: Go, PostgreSQL, MySQL, Hasura, GraphQL, TypeScript, Next.js, Angular, React, Tailwind CSS, React Query



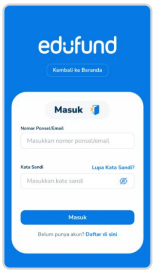
edufund.co.id today: the home page.



edufund.co.id in June 2026: its loan products.



edufund.co.id today: the older Angular app, still live.



edufund.co.id today: sign-in, on a phone.

More: haryarrahman.tech/experience/edufund

Happy5

Apr 2021 – Sep 2023

Jakarta · Full-time · happy5.co

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

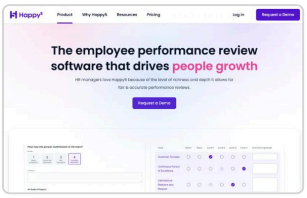
Grew from intern to frontend web developer on Happy5's performance-management platform (HR tech).

- Moved styling from Styled Components to Tailwind CSS.
- Built Cypress end-to-end tests and resolved production issues through Sentry.

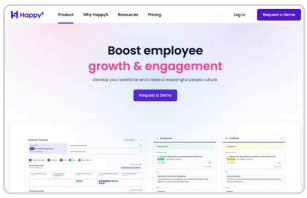
- Added WebSocket real-time features and Amplitude event tracking.
- Created PDF templates, Storybook docs and reusable React Query hooks.
- As an intern, moved class components to functions and supported the TypeScript migration.

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

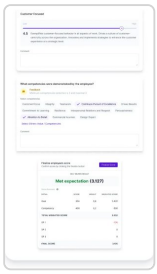
Stack: TypeScript, React, Tailwind CSS, Cypress, Sentry, Storybook, React Query, Zustand



happy5.co today: performance reviews.



happy5.co today: recognition and feedback.


happy5.co today: review screens, on a phone.

More: haryarrahman.tech/experience/happy5

FREELANCE & CONTRACT

Freelance

Sep 2022 – now

Remote · Japan & Indonesia · Freelance

Web Developer, Sep 2022 – now

Web applications for clients across Japan and Indonesia: attendance, catering and internal business tools.

Client projects

JA Hakui Attendance System, Japan Nov 2022 – Apr 2023

Two apps: an admin dashboard for attendance and a QR-code stamping app for workers.

Tech: React, React Query, Zustand

Catering System for Doi Masaru, Japan Jun – Sep 2023

An admin platform and a customer ordering app for a catering business.

Tech: Next.js, React Query, Zustand, Material UI

My Siloam: HSSE monitoring, Indonesia Jun 2024 – Jun 2025

Forms, dashboards and maker/checker approvals for a hospital group's health, safety & environment monitoring.

Tech: Next.js, TypeScript, React Query, TanStack Table, React Hook Form, Zod

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

More: haryarrahman.tech/experience/freelance

Mycelium Network

Feb – Nov 2025

Remote · Freelance · myceliumnetwork.io

Software Engineer, Feb – Nov 2025

Feature work across the frontend, backend and data layers of a Next.js application with blockchain-related tooling.

- Built interactive frontend features in Next.js.

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

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



myceliumnetwork.io today, rebuilt after I left.



myceliumnetwork.io today, on a phone.

More: haryarrahman.tech/experience/mycelium-network

PROJECTS

Penawaranku — AI cost-estimation (RAB) document generator

Thesis · 2025 – 2026

Live

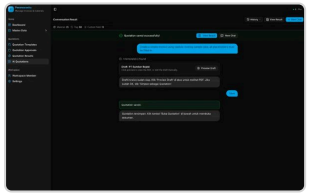
Final-year thesis: an AI system that drafts cost-estimation (RAB) documents from reference data, saved only after you confirm.

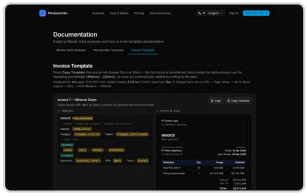
- Hybrid RAG inside Postgres: pgvector and full-text search, fused with Reciprocal Rank Fusion.
- Two-phase flow: an AI draft first, saved only after the user confirms.
- Multi-tenant workspaces with roles and a quotation approval workflow.
- DOCX templates rendered to PDF through Gotenberg.

Key figures: 650+ commits, built solo

Tech: Next.js, Supabase, pgvector, RAG, text-embedding-3-small, docxtemplater, Gotenberg

Links: penawaranku.my.id


The running app: AI draft, preview, save. Sample data.



Public docs: a template and the invoice it produces.

More: haryarrahman.tech/projects/penawaranku

Arsip Cetak — Multi-tenant SaaS for print shops

Side project · 2026 – present

In development

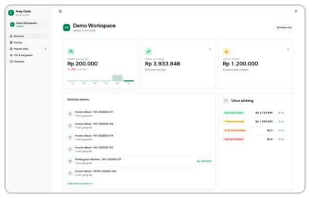
A mobile-first SaaS that lets print-shop owners run inventory and invoicing from their phone.

- Invoice forms generated from each shop's own .docx templates, with DOCX and PDF output.
- A no-login customer portal over tokenized links.
- Web push notifications and an offline-capable PWA.
- Workspace roles, an audit log, row-level-security tests and database backups to Cloudflare R2.

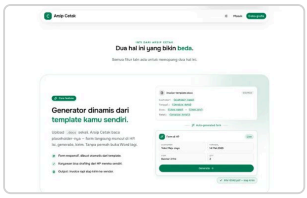
Key figures: 660+ commits, built solo

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

Links: arsipcetak.web.id



The running app, in a demo workspace.



Landing page: a .docx becomes a phone form. Illustrative panel.

More: haryarrahman.tech/projects/arsip-cetak

Lomba Agustusan 2026 — Competition app for a neighbourhood Independence Day event

Community · Jul – Aug 2026

Completed

A mobile-first site for Karang Taruna RT.002's Independence Day competitions: registration, brackets, scoring and door prizes.

- Per-competition registration with shareable invite links.
- Tournament brackets that distribute byes and lock finished matches.
- Committee scoring, draws, and big-screen displays for the event.

Tech: Next.js, TypeScript, Supabase, Tailwind CSS, Motion

Links: agustusan-2026.katar-002-04-jati.web.id



The finished 10-team bracket.



An event card, on a phone.

More: haryarrahman.tech/projects/lomba-agustusan-2026

This site — My portfolio, with a background that follows the visitor's weather

Side project · Nov 2026 – present

Live

The site you're reading: a TanStack Start app whose facts all come from one typed content package.

- Story, case studies, and a CV that prints to an ATS-ready PDF.
- Background follows the visitor's weather: rain, snow, stars or soft gradients.
- Prerendered on Cloudflare Workers, with one small weather route.
- Next: an admin on NestJS, Neon and R2, and MCP to seed it.

Tech: TanStack Start, TanStack Router, React Query, React, TypeScript, Tailwind CSS, Radix UI, GSAP, Vite, Cloudflare, Cloudflare Workers, Turborepo, pnpm, Biome, Playwright

More: haryarrahman.tech/projects/portfolio

EDUCATION

BINUS Online — Bachelor of Information Systems

Aug 2022 – Dec 2026 (expected)

GPA 3.94 / 4.00

- Projects: MVC web apps (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.