

NGUYEN HUY HOANG

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SUMMARY

Software Engineer with nearly 3 years of experience building production-grade web applications with React, Next.js, and TypeScript. Sole owner of the entire frontend for AhaFood.ai — a food e-commerce platform embedded in the Ahamove super-app — and builder of AI Agent integration for the Franchise Portal (AI menu-extraction streaming over SSE). Experienced in AI-assisted development workflows: directing AI coding agents (Claude Code) with curated context, modular rules, and review skills to ship feature-level work with PR-quality output.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript (ES6+), HTML5, CSS3, SQL

Frontend: React 18/19, Next.js 14–16 (App Router, Route Handlers, ISR), TanStack Start (SSR via Nitro), TanStack Router, TanStack Query v5, Zustand, React Hook Form + Zod, Tailwind CSS v3/v4, shadcn/ui + Radix UI, Framer Motion, @dnd-kit, next-intl (i18n), react-konva

AI / LLM Integration: Vercel AI SDK v5 (real-time streaming chat), Anthropic Claude API, Google Gemini API, AI agent integration over SSE, BYOK pattern, Claude Code workflows (CLAUDE.md configuration, modular rules, custom agent skills, code-review skill)

Backend & Data: Next.js Route Handlers, BFF pattern (TanStack Start createServerFn), RESTful APIs, Drizzle ORM, Neon PostgreSQL (serverless), Clerk auth, OIDC OAuth 2.0 + OTP flows, HttpOnly-cookie sessions, RBAC (permission matrix), CASL, Cloudinary (signed uploads), Telegram Bot API, Resend, LocationIQ geocoding + Haversine

3D / Graphics: Three.js, react-three-fiber, OpenSCAD WASM (in-browser CAD compile)

Analytics & Observability: Google Analytics 4 (tracking audit, audience segments, webview attribution debugging), Google Tag Manager, Sentry

Testing: Vitest, Playwright (E2E), React Testing Library

Tooling & Infra: Turborepo, pnpm, Vite, Git, GitLab CI, Vercel, GCP Cloud Run, Figma

PROFESSIONAL EXPERIENCE

Ahamove

Ho Chi Minh City, Vietnam

Software Engineer

12/2023 – Present

AhaFood.ai — Food E-commerce Platform (ahafood.ai) · sole frontend owner

- Own the full frontend of AhaFood.ai: a Turborepo monorepo with two Next.js 15 apps (customer storefront + merchant dashboard) and three shared packages (@ahafood/ui, @ahafood/common-i18n, @ahafood/icons), running as a webview embedded in the Ahamove super-app, serving 2000+ merchants / 3000+ orders per day.
- Built AI chat ordering: real-time streaming conversational ordering over Vercel AI SDK v5 (TextStreamChatTransport), integrated with a recommendation API for location- and customer-based dish suggestions.
- Implemented OIDC OAuth 2.0 federated authentication (Ahamove accounts) with OTP verification and token refresh/sync between SSR and CSR.
- Led GA4 product analytics: audited all tracking, built city-based audience segments, and diagnosed a webview undercount caused by history.replaceState stripping the ?webinapp parameter before GA4 fired — restoring accurate in-app attribution.
- Built a batch food-image editing tool for merchants with react-konva (drag/resize/rotate, two-stage local-then-AI flow), cutting image preparation time by 50%.
- Designed shared frontend/backend authorization with CASL, serializing permission rules to JSON with server-side enforcement as the single source of truth.
- Merchant dashboard: drag-and-drop menu management (@dnd-kit), data tables (TanStack Table), i18n with next-intl; observability with Sentry; tested with Vitest + Playwright.

Franchise Portal — AI Merchant Onboarding (fc.ahamove.com)

- Built a multi-role franchise management portal (admin / partner / merchant) on TanStack Start (React 19, SSR via Nitro), deployed on GCP Cloud Run.

- Integrated an AI Agent for merchant onboarding: merchants upload menu photos → AI extraction agent reads dishes and prices → results stream live over SSE into a scanning UI (client-side image compression, 90s timeout handling); secondary flow crawls menus from food-platform URLs (Shopee, Facebook, etc.).
- Built a type-safe BFF layer with `createServerFn` — every Ahamove API call goes through server functions with tokens in `HttpOnly` cookies (OTP-based login, refresh-token rotation), never exposed to the client.
- Designed an RBAC package (`@ahafood/rbac`) with a detailed permission matrix (7 roles × 8 modules) applied to route guards and UI.

AI-Assisted Engineering Workflow (cross-team)

- Established the team's AI coding-agent workflow: CLAUDE.md project configuration, modular coding rules, and custom agent skills (including a code-review skill) — shipping features and bugfixes through AI agents with fully reviewed, PR-quality output.

PERSONAL PROJECTS

Japanese Learning App — hoc-n3

hoc-n3.vercel.app

React 18 · TypeScript · Vite · TanStack Router · Zustand · Radix UI · Tailwind

- Fully static JLPT practice SPA with no backend — all content shipped as self-curated JSON datasets: 125 grammar patterns (N5–N3), 375 quiz questions, 628 kanji in 38 radical groups, 2,692 vocabulary items covering all 50 Minna no Nihongo lessons, 8 reading passages, and 10 full JLPT-style mock exams.
- Hand-built token-based furigana renderer (`<ruby>/<rt>`) with a global toggle; flashcard and quiz modes; progress tracking persisted to `localStorage` via `Zustand persist`.

Personal Services Monorepo — my-service

canman.hoangnh.io.vn

Turborepo · Next.js 14 · Neon PostgreSQL ×2 · Drizzle ORM · Clerk · Cloudinary

- Turborepo + pnpm monorepo running three services on two isolated Neon Postgres databases, with shared packages `@repo/db`, `@repo/notify` (Telegram + Resend), and `@repo/ui`.
- Calibration booking: monitor color-calibration scheduling with distance-based dynamic pricing (Haversine + LocationIQ geocoding), an admin panel driven through a Telegram bot (`/confirm`, `/done`, `/cancel`), ICS calendar feed for iPhone, Excel export, and Claude-API content drafting (human-in-the-loop structured outputs for FB/SEO posts).
- Marketplace: tech resale/repair platform — CRUD listings, Cloudinary signed-upload galleries, repair price tables with an estimate form.
- Sansale: Shopee affiliate link converter — SSRF-safe URL unshortening and normalization, dedup, IP-hash rate limiting, click-tracking redirects, and a cashback ledger dashboard (pending → confirmed → paid) with 6-month analytics.

3D Wheel Generator — wheel-forge

wheel-forge-two.vercel.app

Next.js 16 · TypeScript · OpenSCAD WASM · Three.js / react-three-fiber · Claude & Gemini API

- Parametric wheel generator for 1:64 diecast hobbyists running entirely in the browser: Zod-validated specs (diameter, spoke style, bearing hole, resin/FDM printer tolerances) or a reference photo → LLM (Claude/Gemini, dual-provider BYOK) generates OpenSCAD code → compiled to STL in-browser via OpenSCAD WASM — no CAD software required.
- Edit mode: upload an existing STL → auto-detect dimensions (OD, width, bearing hole via radial clustering) → describe changes in text → regenerate; live 3D preview (orbit controls, wireframe, before/after compare), CodeMirror code viewer, 5 presets.

EDUCATION

University of Information Technology (UIT) — VNU-HCM

Ho Chi Minh City, Vietnam

Information Technology

LANGUAGES

Vietnamese (Native) · English (Basic — everyday communication; technical reading & writing) · Japanese (JLPT N4)