

Ibrahim Topchu

Full-stack developer | 42-trained, AI-augmented

SUMMARY

My foundation is Codam (42 Network) — C and systems, the fundamentals, and that part is genuinely hands-on. I build products the modern way: AI-augmented. I direct AI agents to write much of the code while I own the architecture, integrate the pieces, and self-host to production. The output is real, shipped software — a multi-tenant workshop SaaS with row-level security, an AI-driven Shopify pipeline on the Claude Agent SDK, and a digital-signage platform — several live today. I'd rather ship a working system end-to-end, honestly, than claim deep expertise in every framework on the page. I'm looking to bring that ownership to a product team.

SKILLS

What I do	Ship full-stack products end-to-end · Build AI agent & content pipelines · Self-host & deploy to production · Integrate ERPs, payments & APIs · Own architecture & product decisions
Hands-on (mine)	C & systems — Codam / 42 · AI orchestration (Claude Agent SDK) · Self-hosting — Proxmox, Docker, Cloudflare · Debugging, wiring & shipping
Tech (AI-augmented)	TypeScript, Python, C / C++, SQL, Next.js, React, NestJS, FastAPI, PostgreSQL, Docker, Proxmox, Cloudflare, Odoo, Shopify, Stripe, Claude Agent SDK, Gemini, GitHub Actions

SELECTED PROJECTS

Independent, AI-augmented builds — I owned the architecture, integration and deployment end-to-end. Several run in production today.

Wrenchbay — Multi-tenant vehicle-workshop SaaS 2025 — present

The application a workshop runs its day on — repairs, tyres, body, rental and detailing in one place. Grew from a live single-tenant build into a proper SaaS: a FastAPI + SQLAlchemy + PostgreSQL backend with tenant-scoped row-level security (fail-closed isolation), a React 19 / Vite / TanStack Query frontend, two-tier auth (SSO for owners, PIN for employees), field-level PII encryption with key rotation, server-side invoice PDFs and a FastAPI plate/VIN OCR microservice (ONNX ALPR + doctr). Integrates with Odoo over XML-RPC, ships 10-locale internationalization, and is threat-modelled with a dedicated security test suite.

Stack: FastAPI, SQLAlchemy, Postgres RLS, React 19, Odoo XML-RPC, ALPR OCR

- FastAPI + SQLAlchemy + PostgreSQL with tenant-scoped row-level security (fail-closed); two-tier auth — SSO for owners, PIN sessions for shop-floor employees.
- A FastAPI plate/VIN OCR microservice (ONNX ALPR + doctr), field-level PII encryption with key rotation, and server-side invoice PDFs.
- Odoo integration over XML-RPC for work-order sync; multi-day reservations with conflict detection; 10-locale internationalization.
- Threat-modelled with a security test suite — CSRF, TOTP / 2FA, security headers and tenant fail-closed isolation.

Heater-Shopify — AI-driven storefront for G-Berg GmbH 2025 — present

A heating-products storefront serving 5 EU markets in 4 languages (DE default, EN/NL/FR), with per-country VAT and Klarna / PayPal / Apple Pay. A Claude Agent SDK + Gemini pipeline mirrors the supplier catalog weekly via GitHub Actions and regenerates product photography automatically. A second AI pass writes structured product summaries — key facts, compatibility, buyer FAQs — that feed both on-page blocks and AI search engines (Google AI Overview, Perplexity, ChatGPT). Zero hardcoded customer-facing strings.

Stack: Next.js 15, Shopify Storefront API, Liquid, Claude Agent SDK, Gemini, GitHub Actions

- A Claude Agent SDK + Gemini pipeline mirrors the supplier catalog weekly via GitHub Actions and regenerates product photography automatically.
- A second AI pass writes structured product facts, compatibility and buyer FAQs feeding both on-page blocks and AI search engines (Google AI Overview, Perplexity, ChatGPT).
- Per-country VAT plus Klarna / PayPal / Apple Pay.
- 100% of UI strings internationalized via Translate & Adapt — zero hardcoded customer-facing text.

Viewport — Digital signage platform

2024 — present

Design a screen once, schedule it anywhere, run it unattended. A pnpm + Turborepo monorepo: a NestJS REST/WebSocket API, a Next.js 15 dashboard and marketing site, and a Vite/React offline-capable PWA player. A Fabric.js visual designer with a GSAP multi-track timeline, RBAC, Stripe billing, proof-of-play analytics and real-time screen sync. ~1,000 unit tests across the workspace; ships an Odoo 19 self-host addon and a WordPress plugin.

Stack: NestJS, Next.js 15, Fabric.js, GSAP, Stripe, Turborepo, PWA, Odoo 19

- A pnpm + Turborepo monorepo: a NestJS REST/WebSocket API, a Next.js 15 dashboard + marketing site, and a Vite/React PWA player.
- A Fabric.js visual designer with a GSAP multi-track animation timeline and reusable compositions.
- Real-time WebSocket player sync, an offline-capable PWA player, RBAC, Stripe billing and proof-of-play analytics.
- Self-host integrations — an Odoo 19 addon and a WordPress plugin.

Hexen — Online booking site — hexendetailing.com

live

The customer-facing booking site for Hexen Autodetailing — a Next.js 16 marketing and booking funnel with a multi-step package configurator, wired into an Odoo 17 ERP (custom hexen_werkplaats addon) so bookings land directly in the workshop's system. Cloudflare-fronted and Docker-deployed. Live at hexendetailing.com.

Stack: Next.js 16, React 19, Odoo 17, Cloudflare, Docker

- A Next.js 16 marketing + booking funnel with a multi-step package configurator.
- Wired into an Odoo 17 ERP via a custom hexen_werkplaats addon so bookings appear in the workshop's system instantly; Cloudflare-fronted and Docker-deployed.

FZS-Allround — Hand-crafted handyman website

2024

A hand-crafted website for a handyman business — built end-to-end to present its services and showcase results from completed jobs, not dropped into a template. NestJS + React 19 + Postgres, with PDFKit quotes/invoicing, a sanitized file-upload pipeline and a contact-to-email flow.

Stack: NestJS, React 19, Postgres, PDFKit

- Hand-built React 19 front end with a NestJS + Postgres backend — full control over structure, content and presentation.
- PDFKit quotes/invoicing, a sanitized file-upload pipeline and a contact-to-email flow.

Earlier work — Codam / 42 Network

2022 — 2024

ft_transcendence — full-stack pong and chat (NestJS, React, WebSockets, OAuth). **webserv** — HTTP/1.1 web server in C++ (config parser, CGI, poll-based non-blocking I/O). **FdF** — 3D wireframe renderer in C with minilibx (isometric projection, Bresenham line-drawing). **Minishell** — Bash shell replica with pipes, redirections, heredoc and signals. **Inception** — Dockerized NGINX / WordPress / MariaDB stack with TLS. **Philosophers** — concurrency and synchronization with threads and mutexes.

EXPERIENCE

Detailer & Software Developer · Hexen Auto Detailing

Mar 2026 — present

Amsterdam, Netherlands

Run detailing and shop operations while building and maintaining the business's software — the customer-facing online booking website (Next.js, Odoo-backed) and the in-house workshop registration and management system.

Sales Associate (Verkoper) · Potae

Mar 2025 — Feb 2026

Amsterdam, Netherlands

Field Engineer · NNP Tech

2023 — Jan 2025

Netherlands

Installed servers and networking equipment in racks for enterprise and government clients across the Netherlands. Responsible for clean rack organization and on-site delivery quality.

Delivery Rider · Uber Eats

2022 — 2023

Amsterdam, Netherlands

Furniture Fitter · IKEA-Alert

2016 — 2022

Netherlands

On-site assembly of kitchens, furniture and laminate flooring across the country.

EDUCATION

Codam Coding College · 42 Network

Oct 2022 — Jun 2024

Amsterdam, Netherlands · Peer-to-peer Computer Science (algorithms, systems, networking)

LANGUAGES

Turkish	Native
English	Fluent — full professional working proficiency
Dutch	Fluent — full professional working proficiency

PERSONAL INFRASTRUCTURE

Homelab: Proxmox hypervisor running my projects behind a Cloudflare reverse proxy. Docker for orchestration, NGINX Proxy Manager and Caddy for ingress, full-stack ownership from VM to TLS — production discipline on infrastructure I run myself.

VOLUNTEER

Programming Supervisor · IPN Foundation

May — Aug 2023

Guided children aged 5 to 11 through Scratch and LEGO Mindstorms programming basics.