

Hamdy Mohammed

Senior Full Stack Engineer — NestJS · Next.js · TypeScript · PostgreSQL

Egypt (Remote, EMEA timezone) · +20 100 450 6258 · aljzarh46@gmail.com · hamdy-mohammed-dev.vercel.app · linkedin.com/in/hamdy-mohamed-507312236 · github.com/H-M-H-cmd

PROFESSIONAL SUMMARY

Senior Full Stack Engineer, 5+ years building production TypeScript systems with a focus on **NestJS** and **Next.js** on PostgreSQL. Built and operate a **live multi-tenant ERP on NestJS 11** — a separate database per customer across 55+ modules, deployed blue-green at **99.9% uptime**. Also ships type-safe **tRPC** monorepos and production **AI-agent** systems (LLM tool-calling, multi-provider routing), backed by automated testing and CI/CD.

CORE TECHNICAL SKILLS

Languages	TypeScript, JavaScript (ES2024), SQL, PHP 8
Backend	NestJS 11 (DI, guards / interceptors, WebSocket gateways, dynamic modules), TypeORM, Node.js, Passport JWT / OAuth, Swagger / OpenAPI, BullMQ + Redis, tRPC, Pino · REST, GraphQL · Laravel 12 (Octane)
Frontend	Next.js 16 (App Router, RSC, Server Actions), React 19, TanStack Query, React Hook Form + Zod, shadcn/ui + Radix UI, Tailwind CSS · Vite · Vue 3 / Nuxt 3 / Pinia · React Native / Expo
Databases	PostgreSQL (self-hosted + Supabase), Drizzle ORM, multi-tenant DB-per-tenant modeling, migrations & schema-drift CI · Supabase Auth / RLS / Edge Functions / Realtime / Storage · Redis · MySQL · MongoDB
AI / ML	Vercel AI SDK (ai v6), LangChain JS + LangGraph, multi-provider routing (OpenAI, Anthropic, Gemini), tool-calling, streaming SSE, pgvector embeddings , Google Cloud Vision OCR, prompt engineering
Testing & DevOps	Vitest, Jest, Supertest (NestJS e2e), Playwright (E2E), MSW, k6 load testing , Testing Library · Docker, CI/CD (GitHub Actions), blue-green / zero-downtime deploys, Caddy, Vercel, Railway, Cloudflare, Sentry, Turborepo / pnpm
Security	OWASP Top 10, RLS, OAuth2 / OIDC, JWT, rate limiting, input validation (Zod), KYC/AML (Sumsub), Cloudflare WAF, secret rotation
Architecture & CS	Modular monoliths, multi-tenant isolation, 3-tier SOA, ERD / state-machine / sequence diagrams, OpenAPI · data structures, algorithms, Big-O / complexity, system-performance trade-offs

PROFESSIONAL EXPERIENCE

- Founder & Full-Stack Engineer · Manifest ERP (independent SaaS · live production)

Remote · 2026

NestJS 11 · TypeORM 0.3 · PostgreSQL (database-per-tenant) · Passport JWT · @nestjs/swagger · Socket.io gateways · @nestjs/schedule · React 19 + Vite · Docker · Caddy · VPS

 - Built and operate a multi-tenant manufacturing ERP running in production for ProLink Egypt at **99.9% uptime**, on a **NestJS 11** backend with **request-scoped multi-tenancy** — a TenantContextMiddleware resolves a per-request TypeORM connection, giving each customer a **physically separate PostgreSQL database**.
 - Wrote reusable framework primitives — a generic **tenant-aware CRUD service** base class with lifecycle hooks, **Passport JWT guards**, a **multi-tenant migration runner**, and a **CI schema-drift gate** — and shipped **55+ feature modules** with Swagger / OpenAPI, WebSocket gateways, and cron.
 - Run **blue-green zero-downtime Docker deploys** on a self-managed VPS behind Caddy, with health checks before traffic flips.
- Full-Stack Engineer (NestJS-focused) · Azirai

Remote · 2025

Turborepo · NestJS 11 worker · Next.js 16 · tRPC · Drizzle ORM (26 tables) · BullMQ + Redis · LangGraph + LangChain · Expo · Stripe

 - Built **TRAXON**, an AI trading-agents platform, as a **Turborepo monorepo** — a NestJS worker, a Next.js 16 web app, and an Expo app sharing one Drizzle schema; **tRPC + Zod give end-to-end type safety** with zero contract drift.
 - Engineered the **NestJS worker**: **BullMQ** scheduling / retries, a **LangGraph** agent loop running user markdown strategies, multi-exchange adapters (Binance, a custom Aster DEX adapter, ccxt 108+), and metered Stripe billing — validated with **Vitest + Supertest (e2e) + Playwright** on GitHub Actions.
- Freelance Full-Stack Engineer (NestJS · Next.js)

Remote · 2026

- BrixFund** — UAE fractional-real-estate **fintech** on **Next.js 16**: 27+ versioned REST endpoints + Server Actions, a **Zod-generated OpenAPI spec**, Supabase Postgres + **RLS**, BullMQ dividend workers, **Sumsub KYC/AML**, Stripe, **k6 load tests**, and Cloudflare WAF.
 - Haritage** — Swiss auction house on **Next.js 16 Server Actions (no REST)**: strict **3-tier SOA**, a **Result Pattern** (ServiceResult<T>), Drizzle (30+ tables), passwordless OTP / Magic-Link auth, and 404-not-403 security.

Laravel 12 · Nuxt 3 · PostgreSQL · Prism (AI) · Reverb / Pusher WebSockets

- Shipped multi-module SaaS (**Mesej** WhatsApp + AI agents, Aqd Ejar, Amiral); designed the **AI agent runtime** — a server-side ChatAgent with **12 typed tools** over streaming SSE and multi-provider routing (Gemini / OpenAI / Anthropic).
- Built realtime **WebSocket** sync for high-concurrency inboxes; owned **Docker + CI/CD** zero-downtime deploys; refactored a legacy monolith, lifting Lighthouse from 60 to 90+.

- Standardized the frontend on a shared component library against high-frequency REST APIs; drove cross-functional alignment with backend on API contracts and ergonomics.

- Led end-to-end client-side architecture for a multi-module enterprise web app; built a reusable **Atomic Design** + Storybook library, cutting new-module UI time ~30% and dashboard initial-load ~25%.

- Shipped responsive e-commerce frontends on Magento 2 with strict cross-browser + a11y standards in Agile, Git-based, Dockerized workflows.

KEY STRENGTHS

- **NestJS backend depth** — NestJS 11 + TypeORM, request-scoped multi-tenant isolation, guards / interceptors, WebSocket gateways, BullMQ queues, and Swagger / OpenAPI (Manifest ERP, TRAXON worker).
- **Next.js full-stack** — App Router with RSC, Server Actions, versioned REST, and generated OpenAPI across BrixFund, TRAXON, and Haritage.
- **End-to-end type safety** — tRPC + Drizzle + Zod + shared packages in a Turborepo monorepo; generated TS types and Zod-driven OpenAPI specs.
- **Testing & CI/CD** — Vitest, Supertest (Nest e2e), Playwright, and k6 load tests; GitHub Actions pipelines with blue-green and Vercel / Railway deploys.
- **AI / agentic systems** — LangGraph loops, tool-calling, streaming SSE, and multi-provider LLM routing in production (TRAXON, Mesej, Manifest AI chat).
- **Security** — OWASP Top 10, RLS, JWT, rate limiting, KYC/AML, Cloudflare WAF, and secret rotation in shipped fintech and gov-integrated systems.

OPEN SOURCE · EDUCATION · LANGUAGES

Open source: maintainer of **vue-hijri-gregorian-datepicker** on npm. · **Continuous learning:** NestJS, Next.js, TypeORM / Drizzle, and applied LLM systems (LangGraph, Vercel AI SDK).

Arabic — Native **English** — Professional working proficiency