

MHAMMD GHANOUM

Backend Engineer · NestJS / TypeScript

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Syria — open to relocation (Europe) · Arabic (native) · English (Professional, B2/C1 — no formal exam) · German (B1, B2 in preparation)

PROFILE

Backend engineer specialised in TypeScript and NestJS, with strong PostgreSQL and event-driven architecture experience. I independently design and ship production-grade backend systems — including a multi-role delivery platform with real-time order orchestration and a live SaaS-style queue management product. Solid system design fundamentals (caching, consistency, message queues, database internals), currently expanding into NoSQL and payment infrastructure. Completing German B2; actively relocating to Europe.

EXPERIENCE

Independent Backend Developer · 2024 – Present

Self-directed development of production-grade backend systems, from architecture decisions through deployment.

- Designed and built a multi-role e-commerce delivery backend (NestJS, PostgreSQL, Prisma, Redis, Socket.IO) handling Customer, Vendor, Deliverer, and Admin workflows end-to-end
- Built an immutable event log with CQRS-style timeline projections, enabling full order/job history reconstruction without state replay
- Implemented a batch engine grouping nearby orders before deliverer assignment, with configurable close conditions (time window, size, delay threshold)
- Developed three role-separated Socket.IO gateways (vendor / customer / deliverer) with JWT auth on handshake and reconnect-replay support
- Used Redis for GEO-based deliverer lookups and live location tracking via Cache-Aside and Write-Behind patterns
- Designed and shipped Waitless, a live real-time queue management platform (NestJS, PostgreSQL, Redis, Socket.IO, BullMQ) — currently used as a working product, not a demo
- Chose WebSockets over polling for Waitless so position updates fire only on real state changes, reducing unnecessary client/server traffic
- Implemented BullMQ + Redis for asynchronous, restart-safe email notifications, and UUID-based customer tracking tokens to avoid forcing account creation
- Built a GraphQL job-tracking API (NestJS, PostgreSQL, Prisma) to manage a real, active job search — single endpoint for queries, mutations, and stats instead of multiple REST routes
- Earlier (2021–2024): delivered full-stack REST API products in Laravel with Flutter mobile clients across e-commerce and social platforms, building the foundation before specialising fully in NestJS

FEATURED PROJECTS

E-Commerce Delivery Backend — [NestJS](#) · [PostgreSQL](#) · [Prisma](#) · [Redis](#) · [Socket.IO](#) · [Docker](#)

- Production-style backend for a 4-role delivery platform with event-driven core architecture
- Immutable event log + OrderTimeline/JobTimeline projections for full auditability
- Redis GEO + Write-Behind for real-time deliverer location at scale
- github.com/Mhamd021/Mesyaf-Market

Waitless — Real-Time Queue Management Platform — [NestJS](#) · [PostgreSQL](#) · [Redis](#) · [BullMQ](#) · [Socket.IO](#) · [Next.js](#)

- Live product replacing physical waiting lines with QR/link-based digital queues for small businesses
- Admin dashboard for call-next, no-show handling, and queue lifecycle; customer-facing live position tracking with no login required
- github.com/Mhamd021/waitless

3D T-Shirt Design Tool — [Blender](#) · [Three.js](#) · [Next.js](#) · [NestJS](#) · [PostgreSQL](#)

- Live web-based product configurator with real-time 3D customisation (color, image decals, text)
- NestJS backend for design persistence, asset storage, and AI-assisted design suggestions (provider-abstracted: Ollama / OpenAI)

– *Live demo + github.com/Mhamd021/3d-tshirt-tool*

Job Application Tracker — [NestJS](#) · [GraphQL](#) · [PostgreSQL](#) · [Prisma](#) · [Next.js](#)

- Full-stack tracker built to manage a real Germany job search, with stats dashboard and status pipeline
- Code-first GraphQL API chosen over REST for flexible single-endpoint dashboard queries
- *github.com/Mhamd021/job-tracker*

SKILLS

Languages: TypeScript · JavaScript (ES6+)

Backend: NestJS · Node.js · REST API design · GraphQL · WebSockets (Socket.IO) · BullMQ · JWT

Databases: PostgreSQL · Prisma ORM · Redis · MongoDB (in progress) · query optimisation · schema design

Architecture: Event-driven systems · CQRS-style projections · domain modelling · batch processing · state machines

DevOps: Docker · Docker Compose · Nginx · Git · GitHub Actions (CI/CD)

Also: Laravel (PHP) · Flutter (Dart) · Next.js · Three.js

System Design: Designing Data-Intensive Applications (completed) · caching strategies · consistency models · message queues

EDUCATION

B.Sc. Information Technology Engineering

Al-Hawash Private University, Homs, Syria · 2018 – 2023

LANGUAGES & CERTIFICATIONS

Arabic (native) · English (Professional, B2/C1 — no formal exam) · German (B1 active, Goethe B2 in preparation)