RACHAD GHANEM

Full-Stack Engineer | AI Systems | .NET Core · Next.js · Python
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PROFESSIONAL PROFILE

Full-stack engineer who designs, builds and deploys production AI systems end to end. In 5 months, shipped live products including a WhatsApp AI ordering SaaS that has served 2,000+ customers, a camera-based produce recognition platform for smart scales, and an ERP rolling out across a 4-branch supermarket chain.

CORE SKILLS

- **Languages:** C#, TypeScript, Python, Java, JavaScript, Dart, SQL
- **Frameworks:** .NET Core, EF Core, Next.js, FastAPI, Flutter
- **Architecture:** Layered .NET architecture (presentation → business → data, shared domain), design patterns (GoF)
- **AI / LLM:** LangChain, agents & tool calling, embeddings, speech-to-text, vision
- **Data Pipelines:** AI-guided crawling (Playwright), semantic matching (embeddings + LLM verification); Android RE (Frida, JADX, mitmproxy)
- **Infra & Data:** Linux VPS, Docker, Nginx, SSL/Certbot, PM2, DNS; PostgreSQL, Supabase
- **AI-Assisted Development:** Claude Code (advanced), Cursor, Codex, OpenCode

PROFESSIONAL EXPERIENCE

Full-Stack & AI Engineer — under senior engineer mentorship Jul 2026 – Present

Co-built production systems with a senior engineer, owning frontend, backend, AI and VPS deployment.

SmartRestoAI — WhatsApp AI ordering SaaS for restaurants · *Live · LangChain, FastAPI, .NET 8, Next.js, PostgreSQL*

- Served 2,096 customers since Sep 2026 for the first client; 1,432 ordered through the agent, for 3,440 AI orders and a 51.5% repeat rate.
- Guardrails in code, not prompts: code computes every price, and a false order confirmation is never sent; it is retried with the quoted order, then escalated to staff.
- DeepSeek with GPT failover, voice and photo input; Sentry error monitoring.

Smart Scale — camera-based produce recognition platform · *Live · Python, MNN, Electron, .NET 8, PostgreSQL/pgvector, Next.js*

- Pushed for embedding-based recognition over a local classifier or paid vision API, running embeddings on the scale itself (offline-first).
- Self-improving: each confirmed pick becomes a new reference for its category.
- Networked learning: scales share references through a .NET Portal API and approved ones reach the whole fleet, so every scale gets smarter with use. Multi-tenant, with daily sign-in licensing.

Supermarket ERP — multi-branch retail chain · *Rolling out, 4 branches · .NET 10, EF Core, Next.js, PostgreSQL*

- Built 9 modules: inventory & warehouses, purchasing, point of sale, external orders, public website, marketing & in-store ads, user management, shared tools, settings. Core modules in daily use.
- Offline-first tills: sales queue locally (IndexedDB) and sync with server-side idempotency, so no sale is booked twice.

Flutter Developer Intern — Proc0de Oct 2025 – Jul 2026

- Trained in Flutter/Dart mobile development in a professional team, hand-coding UI screens and API integrations.

EDUCATION & LANGUAGES

- **Diplôme d'ingénieur, Informatique (AISL track)** — CNAM, expected 2029.
- **Licence (Bachelor's), Informatique** — CNAM, 2026.
- **Languages:** Arabic (native), English (C1), French (B2).