# Bahaa Aldein Abdelbadie

*Full-Stack Software Engineer*

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## SUMMARY

Full-Stack Software Engineer with 2 years of experience designing and shipping production web applications end to end, from backend architecture and API design to frontend delivery, across marketplace, EdTech and SaaS products. Focused on backend engineering and system design, building products that scale.

## EXPERIENCE

**Full-Stack Software Engineer · Venustusy IT Solutions** 10/2025 – 10/2026

*Full-time · Remote*

- Built a multi-vendor marketplace, writing the Express and Prisma API and the Next.js admin, vendor, and customer portals.
- Ensured each payment is confirmed exactly once under concurrent gateway callbacks using PostgreSQL row locks, and moved all money to exact decimal values.
- Restored a crash-looping production service on AWS ECS by tracing and fixing configuration drift in its infrastructure.
- Set up GitHub Actions CI and automated Jest and Playwright tests covering the core marketplace flow from sign-up to offer acceptance.
- Built the core web app of an AI tutoring platform in Next.js and React, with streaming AI chat for students, a school admin portal, and Arabic/English (RTL) support.

**Freelance Full-Stack Engineer · Self-employed** 10/2024 – 10/2025

- Built and launched an AI chatbot SaaS solo with Next.js and OpenAI, where businesses train bots on their own content and deploy them on the web, WhatsApp, and Messenger.
- Built a RAG pipeline that turns uploaded documents and crawled websites, including JavaScript-heavy single-page apps, into searchable knowledge with OpenAI embeddings and Upstash Vector.
- Built an embeddable chat widget that businesses add to any site with one script tag, plus a real-time voice assistant on OpenAI Realtime.

## PROJECTS

**Nest Auth**

Took a NestJS and React auth app to a production-style Docker setup: 3 API replicas behind Nginx, a shared Redis rate limit, and CI that tests, scans, and publishes images to GHCR.

## SKILLS

**Backend**
- Node.js
- Express.js
- NestJS
- PostgreSQL
- MongoDB
- Prisma
- Redis
- REST APIs

**Frontend**
- React
- Next.js
- TypeScript
- JavaScript
- Tailwind CSS
- Redux

**DevOps & Tools**
- AWS (ECS, RDS, S3, CloudFormation)
- Docker
- Nginx
- GitHub Actions
- Git

**Testing**
- Jest
- Vitest
- Supertest
- Playwright
- Integration & E2E Testing

## EDUCATION

**Bachelor of Science in Electronics and Communications Engineering** 10/2020 – 07/2025

*Mansoura University*