

Ahmed Fahmy

Kafr El Sheikh, Egypt | 01015205654 | ahmedfahmy@ieee.org | LinkedIn | GitHub | Portfolio

Summary

Results-driven Software Engineer and Full-Stack Developer specializing in robust backend systems, CI/CD automation, and AI integration. Experienced in architecting scalable SaaS platforms, optimizing high-performance databases, and engineering intelligent RAG systems. Grounded in computer science fundamentals, algorithms, software architecture, and 4+ years of community leadership.

Experience

UFUQ Tech

Full-Stack & DevOps Developer

Jan 2025 – Present

Remote – Egypt & Saudi Arabia

Led the end-to-end database design, API engineering, and cloud deployment for high-traffic, multi-tenant SaaS platforms supporting 10k+ active tenants.

- **Hassad (ERP/POS)** – *NestJS, Next.js, PostgreSQL, Tauri*: Engineered a multi-tenant business suite integrating offline POS database synchronization, physical hardware bindings, and financial ledger logging, reducing sync latency by 45%.
- **Haqiem (Medical SaaS)** – *NestJS, Next.js, React Native, Electron*: Architected a cross-platform clinical management system backed by NestJS APIs, boosting API response times by 30% through database indexing and query caching.
- **AECB Parser**: Developed a high-performance credit report extraction engine converting PDFs/ZIPs to structured Excel reports, cutting processing times by 75% with deterministic parsing.
- **DevOps & Infrastructure**: Orchestrated Docker-based VPS environments with Nginx reverse proxies and GitHub Actions CI/CD workflows, slashing deployment times by 60% while maintaining 99.9% system uptime.

Freelance Projects

Full Stack Developer

Jun 2023 – Present

Egypt & Arab Gulf

- Independently architected and shipped 8+ production SaaS applications end-to-end, translating complex business requirements into robust cloud releases.
- **PetroMind (AI RAG)** – *NestJS, Next.js, FastAPI, PostgreSQL*: Developed an AI-powered search engine for petroleum regulations featuring semantic vector search, Stripe subscriptions, and token-based cost tracking, reducing API consumption costs by 35%.
- **Mafad (AI RAG)** – *NestJS, Next.js, FastAPI*: Engineered an AI legal assistant for Saudi regulations, integrating a RAG pipeline with custom cross-encoder re-ranking to accelerate document retrieval speeds by 50%.
- **MyACarf (Donation System)** – *NestJS, Next.js, MongoDB*: Implemented an end-to-end donation management web application with secure payment processing, improving transaction safety and throughput by 40%.
- **Heba Oil (E-Commerce)** – *NestJS, Next.js, MongoDB*: Launched an oil products store with automated real-time inventory synchronization and merchant dashboards, increasing checkout conversion rates by 25%.

Education

Faculty of Computers and Information, Kafr El Sheikh University

Bachelor of Computer Science (GPA: 3.5 / 4.00)

Oct 2022 – Jun 2026

Kafr El Sheikh, Egypt

- Ranked **3rd place** as Ideal Student for outstanding academic performance and extracurricular contributions.
- Completed a technical project each academic year, progressively advancing from computer vision to full-stack enterprise applications.
- Actively participated in student organizations and extracurricular technical activities throughout all four academic years.
- **Relevant Coursework**: Data Structures & Algorithms, Database Systems, Operating Systems, Software Engineering, Computer Networks, AI & Machine Learning, Computer Vision.

Selected University Projects

AgroMind (Graduation Project) <i>FastAPI, ASP.NET, Flutter, Next.js, Docker</i>	Sep 2025 – Jun 2026
- Designed and delivered an AI-powered agricultural & aquaculture platform integrating 20+ ML/CV/LLM models for real-time diagnosis and yield prediction. - Integrated 3 backend services (2 FastAPI + 1 ASP.NET Core), a Flutter mobile app, a Next.js web dashboard, and full DevOps with Docker Compose, Nginx, and CI/CD pipelines.	
ElMnsa (3rd Year) <i>ASP.NET Core, SQL Server</i>	2024
Built a role-based educational management platform using Clean Architecture in ASP.NET Core, supporting multi-role access control for students, faculty, and admins.	
Faculty Management System (2nd Year) <i>.NET, SQL Server</i>	2023
Implemented JWT authentication, CV management, and biometric attendance (facial recognition & fingerprint scanning) for a faculty-wide management system.	
Computer Vision Projects (1st Year) <i>Python, OpenCV</i>	2022
Created real-time Face Recognition, Virtual Keyboard, and ASL Recognition systems using deep learning models (Python, OpenCV).	

Leadership & Volunteer Experience

IEEE Kafr El Sheikh Student Branch	Oct 2022 – Present
<i>Chairman (Previously: High Board Officer → Instructor → Member)</i>	<i>Kafr El Sheikh, Egypt</i>
- Led a technical community of 300+ active members and coordinated the work of multiple committees and executive board members. - Organized and supervised 20+ technical workshops, career events, competitions, and community initiatives. - Mentored 300+ students in technical and professional development across 4+ years of active community engagement.	
ACPC Kafr El Sheikh Club	Jul 2022 – Present
<i>Community Leader & Coach (Previously: Coach → Co-Coach)</i>	<i>Kafr El Sheikh, Egypt</i>
- Facilitated 12 comprehensive workshops on advanced algorithms and data structures, with 25% of participants advancing to qualify for national programming contests. - Coached competitive programmers through targeted problem-solving sessions, driving mastery of algorithmic optimization and contest strategy.	

Training & Competitions

Arab Collegiate Programming Contest (ACPC) <i>4x Participant</i>	Nov 2023 – Nov 2026
Information Technology Institute (ITI) <i>Intensive .NET Backend Training</i>	Aug 2024
National Telecommunication Institute (NTI) <i>MEAN Stack Web Development Training</i>	Jul 2024

Technical Skills

Languages	: TypeScript, JavaScript, C#, Go, Python, C++, SQL, HTML/CSS
Frameworks & Libraries	: NestJS, Next.js, Node.js, ASP.NET Core, FastAPI, React, React Native, Angular, Gin
Databases	: PostgreSQL, SQL Server, MongoDB, Redis, Pinecone
DevOps & Cloud	: Docker, Docker Compose, Nginx, GitHub Actions (CI/CD), Linux/VPS, Git
Architecture & Design	: RESTful APIs, Microservices, Clean Architecture, SOLID Principles, Design Patterns, OOP
AI & Emerging Tech	: LLM Integration, RAG Systems, AI Agent Integration, Vector Databases, Prompt Engineering