

# Ahmed Attia

Full Stack Software Engineer (.NET Backend | Angular)

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[LinkedIn](#) | [GitHub](#) | Military Service: Served | Languages: Arabic (Native), English (Professional)

## PROFESSIONAL SUMMARY

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Full Stack Software Engineer with 4+ years building scalable web applications and AI-powered systems. Strong backend focus in .NET and Python, with hands-on frontend experience in Angular. Daily work includes deploying and managing 13+ microservices on Azure, writing infrastructure-as-code, and integrating LLM-based features (RAG, real-time AI tutoring). Proven track record delivering end-to-end solutions from database design to production deployment.

## TECHNICAL SKILLS

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**AI & LLM Systems:** Azure OpenAI, RAG (Retrieval-Augmented Generation), Azure AI Search, Real-time Voice AI, LLM Integration, Prompt Engineering

**Languages:** C#, SQL, Python, TypeScript, JavaScript

**Backend:** .NET 8, .NET Core, ASP.NET Core Web API, ASP.NET MVC, REST APIs, Entity Framework Core (EF Core), LINQ, Microservices

**Frontend:** Angular, HTML5, CSS3, Bootstrap, Responsive Design

**Databases:** SQL Server, PostgreSQL, MySQL, Database Design, Query Optimization, Stored Procedures

**Cloud & DevOps:** Azure (Container Apps, Container Registry, Blob Storage, Functions), AWS (S3, MediaConvert), Docker, GitHub Actions, CI/CD Pipelines

**Auth & Security:** IdentityServer4 (Auth Infrastructure), OAuth 2.0, OpenID Connect, JWT, Role-Based Access Control

**Architecture:** Clean Architecture, N-Layer, Design Patterns (Repository, Unit of Work, Factory, Singleton), SOLID Principles, Dependency Injection, OOP

**Tools & Practices:** Git, GitHub, Azure DevOps, Agile/Scrum, Code Review, Unit Testing, Swagger/OpenAPI, Postman, GitHub Copilot

## PROFESSIONAL EXPERIENCE

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**Full Stack Software Engineer** | Appenza Studio, Cairo, Egypt

*November 2023 - Present*

- Core backend developer for Faheem AI since early development, built subscription system with voucher codes, and migrated core services from Python to .NET.
- Developed AI chat feature with conversation state management, enabling students to ask curriculum questions via text, voice notes, or image uploads with multimodal AI responses.
- Deployed and maintained Azure infrastructure (13+ microservices across 4 environments), set up CI/CD pipelines with GitHub Actions improving deployment reliability and release speed.
- Maintained Madrastna Plus (Angular/.NET), integrated quiz player with Question Bank platform, and collaborated on feature development for 50K+ users.
- Built the Question Bank platform end-to-end: Angular frontend, .NET backend with 3 APIs (student/admin/teacher), subscription billing, and content workflows - serving 10K+ students.
- Maintained IdentityServer4 authentication infrastructure handling OAuth 2.0/JWT across all services; optimized user login API reducing authentication latency.
- Mentored 2 junior developers, conducting code reviews and providing technical guidance.

## **Backend .NET Developer** | EL-Square (Deep Tech/IoT), Nasr City, Cairo

March 2023 - October 2023

- Built Industry 4.0 web applications on an IoT platform for enterprise clients (Coca-Cola, EIPICO) with real-time monitoring of production KPIs, energy, water, and CO2 emissions.
- Implemented stored procedures, views, and scheduled jobs for automated data processing and KPI calculation.
- Collaborated cross-functionally with frontend, mobile, SAP, and embedded IoT teams delivering end-to-end solutions.

## **Software Developer (Military Service)** | Watanya Company for Roads & Constructions, Egypt

January 2022 - December 2022

- Maintained and enhanced a desktop application serving 2 departments (Investment and Financial) for managing 100+ rental shop contracts, tenant billing, and automated financial reporting (Windows Forms, .NET Framework, Telerik UI, SQL Server, RDLC Reports).
- Developed reporting modules for the roads ticketing system processing daily vehicle toll transactions across multiple toll stations.

## **KEY PROJECTS**

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**Faheem AI** — Adaptive learning app published by Egyptian Ministry of Education (HolonIQ MENA EdTech 50)

**Stack:** .NET, Python (Flask-RESTX, SQLAlchemy, Marshmallow), Azure Container Apps, Azure AI Search, Azure OpenAI, PostgreSQL, Redis, Docker

**Impact:** Built subscription system with voucher codes, AI chat with state management supporting text/voice/image inputs. Migrated core backend from Python to .NET. Managed 13+ microservices across 4 environments. Serving thousands of students.

**Madrastna Plus** — Official Egyptian Ministry of Education platform for video lessons and interactive quizzes

**Stack:** .NET 8, ASP.NET Core Web API, Angular, SQL Server, Azure, Integration with Question Bank

**Impact:** Maintained platform and integrated quiz player with Question Bank. Collaborated on feature development and bug fixes. 50K+ downloads.

**Question Bank Platform** — Quiz and content management system for educational platforms

**Stack:** .NET 8, ASP.NET Core Web API, EF Core, SQL Server, Angular, AWS S3, Redis, Hangfire

**Impact:** Sole developer. 23-project solution with layered architecture, multi-API design (student/admin/teacher), and integrations with Redis, Firebase, and AWS.

**Coca-Cola & EIPICO Monitoring** — Real-time factory production and environmental monitoring

**Stack:** .NET Core, SQL Server, REST APIs, IoT Integration

**Impact:** Built backend and admin dashboards for live monitoring of production, water, CO2, and electricity consumption via embedded IoT devices.

## **EDUCATION**

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### **Bachelor of Science in Computer Science**

Faculty of Computers and Information, Menoufia University | Graduated June 2021

**Graduation Project:** Mafqood - .NET & Angular web application to locate missing people and properties

**Coursework:** Data Structures & Algorithms, Database Systems, Operating Systems, Software Engineering, OOP