Omar Ahmed Ayad

Software Engineer | Backend .NET Developer

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LinkedIn • GitHub • Portfolio

Backend .NET Developer with expertise in ASP.NET Core, EF Core, and Clean Architecture. Experienced in designing scalable APIs, optimizing SQL Server databases, and applying SOLID principles to deliver secure and high-performance software solutions.

Work Experience

.NET Intern at DEPI (Digital Egypt Pioneers Initiative)
October 2024 - May 2025 • ↗

- Developed scalable .NET APIs, increasing data processing efficiency by 30% through optimized LINQ queries and middleware.
- Managed SQL Server databases and enhanced performance by implementing indexing strategies, reducing query execution time by 40%.
- Applied dependency injection and middleware to improve maintainability and simplify testing in real-world projects.
- Strengthened backend development expertise by working with ASP.NET Core, EF Core, MVC, and RESTful Web APIs in collaborative Agile sprints.

Problem Solving Instructor at MSP (Microsoft Student Partner) Programming Community
August 2024 - Present

- Led training sessions on algorithms and data structures, helping students strengthen problem-solving skills.
- Prepared weekly problems, tutorials, and mock contests aligned with ECPC/ICPC standards.

Projects

Internship Application Portal • ↗

Internship Application Portal using ASP.NET Core Web API. Developed a full ASP.NET Core Web API solution following Clean Architecture. Implemented JWT Authentication & Role-based Authorization. Built modular layers (DTOs, Repositories, and Services) with AutoMapper for efficient object mapping. Designed RESTful APIs with proper documentation & standards. Followed Agile, SOLID principles, and OOP best practices

School – Educational Management System • ↗

Built an educational management system supporting Roles (Admin, Student, Instructor). Implemented course/session management, scheduling, and feedback features. Applied layered architecture with dependency injection for scalability

Skills

Backend: C#, OOP, ASP.NET Core, MVC, RESTful Web APIs, Microservices, SignalR, Clean Architecture, Dependency Injection, Middleware

Databases: Microsoft SQL Server, Query Optimization, LINQ, Entity Framework Core (EF Core), Data Modeling

Core Concepts: Problem Solving, Data Structures, Algorithms, SOLID Principles, Design Patterns, Agile

Deployment: Git, GitHub, GitHub Actions, Docker (Containers), CI/CD Pipelines, Azure

Frontend: HTML5, CSS3, Bootstrap, JavaScript (ES6), TypeScript

Soft Skills: Team Collaboration, Communication, Research, Time Management, Mentoring

Education

Bachelor's degree in Computer Science & Artificial Intelligence at Helwan University, Cairo, Egypt
September 2022 - July 2026

Languages

Arabic - Native

English - Proficient