

Khaled Hamada

Backend .NET Developer | FCI Student (CS Department)

Assiut, Egypt

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PROFESSIONAL SUMMARY

Backend .NET Developer with hands-on experience building secure and scalable RESTful APIs using ASP.NET Core and Entity Framework Core. Strong foundation in Clean Architecture, database design, and API security (JWT, role-based authorization). Passionate about backend performance, reliability, and writing maintainable production-ready code.

TECHNICAL SKILLS

Languages: C#, .NET, SQL, C/C++, Python

Frameworks: ASP.NET Core Web API, ASP.NET MVC, Blazor (familiar)

Databases: SQL Server, MySQL, Entity Framework Core (Code First & Migrations), LINQ

Architecture: Clean Architecture, SOLID Principles, Dependency Injection, Repository Pattern

Auth & Security: JWT Authentication, Refresh Tokens, Role-Based Authorization, Middleware, API Security

AI Tools: GitHub Copilot, Cursor — used to enhance development productivity, assist in code review, and accelerate debugging while maintaining strong understanding of core concepts.

Tools: Git, GitHub, Postman, Swagger / OpenAPI, Visual Studio, VS Code

Concepts: RESTful APIs, OOP, Data Structures & Algorithms, Scalability, Performance Optimization

Methodologies: Agile / Scrum, Sprint Planning, Code Review

EXPERIENCE

Programming Instructor | *Techno Stem — Assiut, Egypt*

2025

- Taught programming fundamentals to young students, including basic logic, variables, and problem-solving concepts in a simplified and engaging way.
- Guided students through hands-on problem-solving exercises, helping them develop logical thinking and step-by-step reasoning skills.
- Created a supportive learning environment that encouraged curiosity, participation, and confidence in learning programming.

PROJECTS

Blood Bridge System — ASP.NET Core Web API (Live: bloodbridgeapp.runasp.net) | *Graduation Project*

- Engineered a production-grade scalable backend system using ASP.NET Core Web API, following Clean Architecture principles with full separation across Data, Application, and API layers.
- Designed and implemented secure authentication using JWT with refresh tokens and role-based authorization — covering API security and access control across all endpoints.
- Designed a robust relational database using SQL Server with Entity Framework Core (Code First Migrations), LINQ queries, and optimized indexing for performance and scalability.
- Built RESTful APIs adhering to HTTP standards: proper status codes, centralized exception handling middleware, model validation, and structured error responses.
- Integrated Swagger / OpenAPI for complete API documentation; used Postman for endpoint testing and performance validation before deployment.
- Leveraged AI tools (Claude Code, Cursor) throughout development to accelerate debugging, generate boilerplate code, and review backend logic — directly improving delivery speed.

FES System — ASP.NET MVC Web Application | github.com/KhaledHamada331/FES

- Developed a full-stack web application using ASP.NET MVC, applying the MVC architectural pattern for clear separation between Models, Views, and Controllers.
- Implemented backend business logic and SQL Server database integration using Entity Framework Core, enforcing clean code standards and SOLID principles.
- Demonstrated hands-on familiarity with ASP.NET MVC architecture — a core framework requirement for the Backend .NET Intern role.

DR Compiler — Winform | github.com/KhaledHamada331/DRCompiler

- Built an interactive compiler from scratch in C# and .NET Framework, implementing lexical analysis, parsing, and basic semantic analysis — demonstrating deep .NET and C# fundamentals.
- Applied advanced data structures and algorithms in a real-world system, reinforcing the problem-solving mindset required for backend engineering.

EDUCATION

Bachelor of Science — Computer Science | *Faculty of Computers and Information, Assiut University* Expected June 2026

Relevant coursework: Data Structures & Algorithms, Database Systems, Software Engineering, Object-Oriented Programming, Computer Networks

CERTIFICATIONS & TRAINING

- NTI Summer Training — MEAN Stack (MongoDB, Express.js, Angular, Node.js): Gained full-stack development exposure including API design, database integration, and backend architecture patterns.
- Self-directed learning: ASP.NET Core Web API, Clean Architecture, JWT Authentication, Entity Framework Core — via Microsoft official documentation and hands-on project implementation.

LANGUAGES

Arabic: Native | **English:** Intermediate