

Nour Eldeen Mahmoud

Full-Stack .NET Developer

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Summary

Versatile full-stack developer with a solid engineering foundation in architecture patterns, database design, and software engineering principles — SOLID and multi-tier design patterns.

Actively augmented by AI — skilled in context engineering, harness engineering, AI Workflows and leveraging AI tools (Cursor, Claude, TUI Agents) to accelerate development, explore solutions, and maintain high code quality standards.

Currently specializing in ASP.NET Core, building production-quality web applications with RESTful APIs, Entity Framework Core, and modern design patterns including payment gateway integration and background job processing.

Education

MET Academy, Mansoura, Egypt

Bachelor in Computer Science (In Progress)

Expected Graduation: 2027 GPA: 3.2

- **Relevant Coursework:** Software Engineering, System Analysis & Design, Web Programming, Mobile App Development, Database Management, Data Structures & Algorithms, Computer Graphics, Virtual Reality
- **Project Experience:** Built across web applications, RESTful APIs, mobile development (Flutter), desktop systems, and game development (Unity) — demonstrating versatility across the full software development spectrum

Digital Egypt Pioneers Initiative (DEPI) 6-Month Training Program

- Training Program A national upskilling initiative for students and graduates, combining technical training in software development with hands-on project work. Developed Bookify as the graduation project – a full-stack hotel reservation system.

Projects

CinemaVerse — Cinema Ticket Booking Platform (API)

[GitHub](#)

- A production-grade cinema ticket booking REST API built with Clean Architecture, designed to handle high-volume ticket reservations with secure payments and reliable background processing.
- Developed a production-grade REST API following N-TierArchitecture, Repository, and Unit of Work patterns.
- Implemented JWT-based authentication with role-based access control, Stripe payment integration, and background job processing via Hangfire.
- Added structured logging (Serilog), API documentation (Swagger), and in-memory caching for optimization.
- Technologies: ASP.NET Core Web API, .NET 9, JWT, Stripe, Hangfire

Bookify — Hotel Reservation System (DEPI Graduation Project)

[GitHub](#)

- Built a full-featured hotel booking platform with room search, real-time availability, and secure payment processing via Stripe integration.
- Designed a comprehensive admin dashboard for room management, booking oversight, customer data, and analytics.
- Implemented user authentication (ASP.NET Core Identity) and transactional email notifications via SendGrid.
- Technologies: ASP.NET Core MVC, .NET 9, Entity Framework Core, SQL Server, Stripe API

Blood Bank Management System — API + Mobile + Desktop

[GitHub](#)

- Architected a cross-platform blood donation ecosystem with a .NET REST API serving both a Flutter mobile app and a desktop admin interface.
- Designed the full API backend with JWT authentication, donor management, appointment booking, and blood stock tracking.
- Integrated mobile and desktop clients to share a single backend, demonstrating cross-platform data flow and multi-application architecture.
- Technologies: .NET 6 Web API, Flutter, JWT, SQL Server

Driving & Vehicle License Department System (DVLD)

[GitHub](#)

- Independently architected and developed a comprehensive driving license management system with a structured multi-tier architecture.
- Implemented complex domain logic for license applications, test scheduling, and international permit issuance.
- Designed a robust SQL Server database with stored procedures and structured data access via ADO.NET.
- Technologies: C#, SQL Server, ADO.NET, 3-Tier Architecture

Skills

Backend: ASP.NET Core MVC, Web API, REST, EF Core, LINQ, Dapper, JWT

Frontend: HTML5, CSS3, Tailwind, Responsive Design, JavaScript

Architecture: Clean Architecture, N-Tier, Repository + Unit of Work, SOLID, 3-Tier

Databases: SQL Server, T-SQL, Database Design

DevOps & Tools: Git, Swagger, Postman, Stripe, Hangfire, Serilog

Development: AI-Assisted Workflows, Harness Engineering, Context Engineering, Prompt Design

Tools & Environment: Cursor (AI-Native IDE), Claude (Chat + CLI Agent), OpenCode TUI