

Abdulrahman Hossam

Software Engineer

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Objective

Backend-focused Software Engineer with a passion for open-source systems and high-performance architecture. Specialized in .NET and Go, with a strong commitment to writing clean, maintainable code and building highly scalable, robust solutions.

Education

Al-Azher University

Bachelor's Degree, College of Education

Oct 2020 – Present

Cairo, Egypt

Experience

SiGma (Large-scale ERP & CRM System)

Feb 2026 – May 2026

Freelance .NET Backend Developer

- Refactored and optimized existing backend architecture (Controllers, Services, Models, and Configurations) to improve code maintainability and system performance.
- Restructured data models and API responses to seamlessly align with frontend UI requirements, ensuring smooth data binding and enhanced user experience.
- Conducted comprehensive code reviews and enforced Clean Code principles across the existing codebase to ensure high-quality, bug-free deliverables.

Projects

qget (CLI Video Downloader) | Go, Bash, FFmpeg | github.com/qget

- Developed a cross-platform CLI tool in Go for seamless video and playlist downloading with interactive quality selection and audio extraction.
- Implemented automated dependency management (yt-dlp, FFmpeg) and a minimalist progress visualization system, ensuring a zero-manual-setup experience.

Egypt.NET | ASP.NET Core 8, xUnit | github.com/egypt-net-core

- Architected a zero-dependency, production-ready .NET domain library for processing Egyptian national data, utilizing Clean Domain Modeling and immutable objects.
- Engineered complex data extraction algorithms for geographic and demographic classification, ensuring 100% test coverage with over 150 unit tests.

Kernel Simulator | ASP.NET Core 9 | github.com/kernel-simulator

- Developed a tick-based OS kernel simulator implementing complex Process Scheduling algorithms like Round Robin, Preemptive Priority, and Aging to prevent starvation.
- Architected a simulation engine managing Process States (Ready, Running, Blocked) and I/O Blocking using a decoupled service-oriented architecture.

Chat Application | ASP.NET Core 8, SignalR | github.com/ChatApp-Api

- Built a real-time messaging system using SignalR Hubs, supporting group chats, presence tracking, and instant message delivery with SQL Server and EF Core.
- Implemented Repository Pattern and JWT Authentication, integrating Cloudinary API for secure media uploads and AutoMapper for efficient DTO mapping.

Prime Care | ASP.NET Core 8, Redis | github.com/primecare

- Engineered a healthcare platform using Clean Architecture (Domain, Application, Infrastructure layers) to ensure separation of concerns and maintainability.
- Developed a secure Admin Dashboard with Role-Based Access Control (RBAC), integrating Redis for caching and JWT for identity management.

Technical Skills

Languages: C#, Go, Java, C, SQL, Bash

Frameworks & Libraries: .NET Core (6-9), ASP.NET Core, LINQ, Entity Framework Core, SignalR, AutoMapper

Architecture & Patterns: Clean Architecture, CQRS, Repository Pattern, SOLID Principles, JWT, RESTful APIs

Databases & Caching: SQL Server, MySQL, Redis

Tools & Environments: Linux, Docker, Git/GitHub, Postman