

# Mohamed Mahmoud

## Software Engineer

Cairo, Egypt

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Portfolio — LinkedIn — GitHub

## Summary

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Software Engineer with hands-on experience designing and developing scalable, high-performance web applications using modern technologies. Strong background in building clean architectures, implementing RESTful APIs, and developing maintainable user-facing systems. Experienced in collaborating within cross-functional teams, integrating AI-powered features, and delivering production-ready software. Passionate about problem solving, performance optimization, and continuous learning.

## Experience

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### Front-End Web Development Course – Route Academy (Certification) Sep 2024 – Mar 2025

- Learning modern web technologies, including HTML, CSS, and JavaScript.
- Built small-scale projects such as dynamic websites and API-based applications.
- Built full e-commerce websites.
- Gained proficiency in frameworks such as Angular 19, Bootstrap 5, and Tailwind CSS.

### Software Engineer Intern – EgronX (Certification) Sep 2024 – Mar 2025

- Worked as part of a cross-functional team to develop **Bayt Aura**, a full-featured real estate management web platform.
- Built dynamic and responsive user interfaces using Angular 19, Tailwind CSS, and TypeScript.
- Implemented advanced search and filtering functionalities for property listings.
- Integrated RESTful APIs and optimized front-end performance for scalability and responsiveness.
- Collaborated with the AI team to integrate an NLP-powered chatbot and AI-based property recommendation system.
- Gained hands-on experience working in an Agile environment using GitHub and Scrum methodology.

## Technical Skills

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**Programming Languages:** JavaScript, TypeScript, Python, C#, C++, Java

**Frameworks & Technologies:** Angular, ASP.NET Core, RESTful APIs

**Web Technologies:** HTML5, CSS3, SASS, Bootstrap, Tailwind CSS

**Databases:** SQL Server

**Tools:** Git, GitHub, CI/CD, Vercel

**Concepts:** Clean Architecture, Data Structures, Algorithms, Authentication (JWT)

## Projects

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### SumGenQ – Smart Educational Assistant (Graduation Project) Demo

- Developed the front end of an AI-powered educational platform using Angular and Bootstrap, focusing on user-friendly design and smooth interaction.
- Collaborated with the AI team to integrate NLP-based features such as text summarization and chatbot interaction using Transformer models (BART, T5, Pegasus).
- Contributed to testing and deploying the application using Vercel and GitHub CI/CD, ensuring a stable and scalable system.

### Bayt Aura – Real Estate Management System (Internship Project at EgronX) Demo

- Developed the entire backend of the system using ASP.NET Core, implementing a clean multi-layered architecture (Controller–Service–Repository).

- Built fully functional RESTful APIs covering authentication (JWT), property management, advanced search and filtering, user favorites, and role-based access (Admin / Provider / Customer).
- Designed normalized database schemas using SQL Server and integrated Entity Framework Core for efficient data access and management.
- Integrated AI-based property recommendation and an NLP-powered chatbot through dedicated APIs for a personalized user experience.
- Developed the entire frontend using Angular 19 and Tailwind CSS, including authentication, dashboards, property listing, advanced filters, favorites, and user interaction features.

#### **E-Commerce Website (Front End)**

- Developed a fully responsive e-commerce website using Angular, Bootstrap, and Tailwind CSS.
- Integrated REST APIs to fetch and display dynamic product data.
- Improved site performance by 30% using lazy loading and code splitting.

#### **E-Commerce Website (Back End)**

- Built the backend of a scalable e-commerce system using ASP.NET Core with Onion Architecture.
- Implemented JWT authentication, product filtering, sorting, and pagination using the Specification Pattern.
- Developed basket module, order workflow, and Stripe payment integration.
- Added global exception handling, caching, repositories, Unit of Work, and AutoMapper mappings.

#### **Social Media Application**

- Developed a social media application with post sharing and user authentication.
- Built a fully responsive platform using Angular and Bootstrap.
- Designed an intuitive UI using Tailwind CSS for a seamless user experience.

### **Education**

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#### **B.Sc. in Computer Science and Artificial Intelligence**

Cairo University

Sep 2021 – Jun 2025

### **Languages**

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Arabic (Native)

English (Fluent)