# ZIAD HANY MOHAMMED

# Backend Developer

Tanta, Egypt

# Education

Tanta University

Aug. 2021 - Aug 2024

Bachelor of Computer Science — GPA: 3.0/4.0

Tanta, Egypt

#### Relevant Coursework

- Data Structures
- Software Engineering
- Algorithms Analysis

- Database Management
- Artificial Intelligence
- Internet Technology

- Systems Programming
- Computer Architecture
- Machine Learning

# Experience

## Information Technology Institute, ITI

August 2024 - September 2024

Menofia, Egypt

Backend (.NET) Intern

- Studied C# programming language, covering foundational and advanced topics including Object-Oriented Programming (OOP), LINQ, and advanced C# features.
- Learned database concepts using SQL Server, including ERD (Entity-Relationship Diagram) design, database mapping, and implementation with SQL.
- Worked with Entity Framework Core for database interactions, focusing on handling CRUD operations, data querying, and performance optimization.
- Developed web applications using the MVC (Model-View-Controller) pattern in ASP.NET Core, implementing a full-stack project from scratch.
- Implemented RESTful APIs to connect front-end components with back-end logic and ensure efficient data flow.
- · Gained insights into freelancing, identifying service offerings, and developing a pricing structure for web development projects.
- Learned project management essentials, including portfolio creation, personal branding, and writing successful proposals for client engagement.

# Apps Square Academy Training | Link

July 2024 - September 2024

Backend (.NET) Intern

Tanta, Egypt

- Developed RESTful APIs using ASP.NET Core, applying the CQRS and Repository Pattern to manage complex business logic and data access.
- Utilized Entity Framework Core for database management, handling CRUD operations and optimizing data queries.
- Implemented JWT (JSON Web Token) based authentication for secure access and role-based authorization within the application.
- Followed Clean Architecture principles to maintain separation of concerns, improve scalability, and enhance code maintainability.
- Integrated Serilog for structured logging, capturing user actions, errors, and system warnings, and Hangfire for background task processing and scheduling.
- Designed and analyzed Entity Relationship Diagrams (ERDs) to create efficient database schemas, improving data consistency and integrity.
- Worked extensively with ASP.NET Identity for user management, secure authentication, and role-based authorization.
- Configured automated logging and real-time monitoring of background jobs using Hangfire and Serilog to enhance application observability and error tracking.
- Successfully completed an evaluation task: Boat and Trip Booking System, where I designed and implemented a full-stack booking platform featuring authentication, logging, data management, and robust error handling, following best practices in .NET software architecture.

#### National Telecommunication Institute, NTI | Link

August 2024 – September 2024

Web Design and Development Intern

Cairo, Egypt

- Studied web development concepts, focusing on HTML, CSS, JavaScript, and Bootstrap to build responsive and visually appealing websites.
- Explored UI/UX design principles to enhance user experience and website functionality.
- Worked with back-end integration, utilizing RESTful APIs to connect front-end components to server-side functionality.
- Gained insights into freelancing, identifying service offerings, and developing a pricing structure for web development projects.
- Learned essentials of project management, portfolio creation, personal branding, and delivering successful proposals.

# Boat and Trip Booking System | RESTful API, Entity Framework, SQL Server | GitHub

September 2024

- Developed a comprehensive booking platform for boats and trips, supporting Admin, Owner, and Customer roles.
- Implemented JWT-based authentication and authorization for enhanced API security.
- Applied the CQRS pattern to separate read and write operations, utilizing the Repository Pattern for effective data abstraction.
- Employed Serilog for logging, capturing critical events and errors.
- Integrated a robust error-handling mechanism to manage exceptions and provide user-friendly feedback.
- Delivered organized source code with comprehensive API documentation, SQL scripts for the database schema, and a
  detailed README file.

### Talabat Full Stack | RESTful API, Angular, Rider, VS Code, Postman | GitHub

June 2024

- Developed a secure back-end system for an E-Commerce website.
- Implemented JWT for authentication and authorization.
- Designed data models and enforced input validation to ensure data integrity.
- Maintained API consistency and usability by adhering to RESTful principles.
- Developed the front-end using Angular to enhance user experience.

### Sending Emails with MailKit and MimeKit | C#, .NET, MailKit, MimeKit | GitHub

September 2024

- Created a .NET example for sending emails using MailKit and MimeKit.
- Demonstrated sending basic email messages, attaching files, and sending HTML content.
- Included easy-to-follow examples and asynchronous email sending features.

#### Game Zone | ASP.NET Core, Visual Studio, SSMS | GitHub

March 2024

- Developed a web application using the MVC architecture with ASP.NET Core 8 to manage video games.
- Implemented robust CRUD operations for managing game data in a database.

#### Postman Clone App | C#, .NET 8, WinForms, HttpClient | GitHub

August 2024

- Developed a tool for developers and testers to simplify HTTP requests to APIs and view responses in formatted JSON.
- Implemented a user-friendly interface to streamline API interactions and debugging.
- Facilitated efficient validation and troubleshooting of API calls.

#### Euro 2024 Results | Blazor Web Assembly | GitHub

June 2024

- Developed a web application to display Euro 2024 results using Blazor Web Assembly.
- Implemented interactive features to enhance user engagement.
- Utilized GitHub for version control and project management.

#### Warsha MVC - ITI Graduation Project | ASP.NET Core, MVC, SQL Server | GitHub

September 2024

- Developed a web application for managing and connecting freelancers with clients using ASP.NET Core MVC.
- Implemented user authentication and role-based access control.
- Designed the database schema and implemented CRUD functionalities for project listings.
- Utilized GitHub for version control and collaborative development.

### Stopwatch GUI Program | Java, OOP, IntelliJ, JavaFX | GitHub

November 2022

- $\bullet\,$  Designed a sample Stopwatch application using Java.
- Utilized JavaFX to create a user-friendly GUI.
- Implemented object-oriented programming practices, including inheritance.

#### Technical Skills

Languages: C#, C++, Java, HTML, CSS, JavaScript, SQL

Frameworks: ASP.NET Core (MVC, API), .NET (6 - 9), Blazor, Windows Forms, Entity Framework Core

 ${\bf Technologies:} \ {\bf RESTful} \ {\bf APIs, Microservices, Docker, Bootstrap}$ 

Databases: SQL Server, PostgreSQL, MySQL, NoSQL (MongoDB)

Development Tools: Visual Studio, Rider, VS Code, Postman, Insomnia, SSMS, DataGrip, Azure Data Studio

Concepts: OOP, Data Structures, Algorithms, SDLC, Agile, Design Patterns, RDBMS, ORM, LINQ, Dependency Injection, Version Control (Git/GitHub), Unit Testing, CI/CD

#### Certifications

- Backend Development with ASP.NET Core Information Technology Institute
- Backend (Dot Net) | Apps Square Academy
- Web Design | National Telecommunication Institute Summer Training Course 2024

# Leadership / Extracurricular Activities

Student Union of the College of Computers and Information

Chair of the Scientific Committee

Fall 2022 - Present

 $Tanta\ University$ 

Tanta University

"Family for Egypt" A Student Entity at University

Chair of the Scientific Committee

Media Member

Fall 2023 – Present
Tanta University

Media Team on the Official Page of the Tanta Computer and Information Students Union

• Designed engaging social media graphics that boosted student engagement by 30%.

- Collaborated with team members to create a strategic content calendar for regular and impactful posting.
- Analyzed social media metrics to optimize future campaigns and enhance outreach.