Riaz Mehadi

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About

I am a passionate Computer Science and Engineering graduate from North South University with a strong foundation in full-stack web development, problem-solving, and machine learning. I enjoy building scalable, real-world applications using .NET and Angular — from an e-commerce platform to a full-featured classroom management system and a Stack Overflow-style Q&A system.My experience includes designing clean backend APIs with ASP.NET Core, developing responsive Angular UIs, and implementing complex features like role-based permissions, comment threads, quiz systems, and PDF handling. I've solved over 1700 problems across platforms like Codeforces and LeetCode, giving me strong algorithmic thinking and deep knowledge of data structures. I continuously seek opportunities to learn, collaborate, and deliver meaningful software solutions.

Education

North South University, B.Sc. in Computer Science and Engineering Sept 2019 – Mar 2024

- GPA: 3.61/4.0 (obtained nearly 90% marks)
- **Coursework:** Software Engineering, Design and Analysis of Algorithms, Machine Learning, Theory of Computation, Pattern Recognition, Computer Vision, Deep Learning

Professional Experience

I have solved more than 1700 problems on competitive programming platforms such as Codeforces, LeetCode, and HackerRank, gaining substantial experience in algorithm design and optimization. My technical expertise spans dynamic programming, graph theory, trees, DSU, and other advanced problem-solving topics. In addition to competitive programming, I've built production-ready applications, including a hotel inventory management system with .NET and Angular, and an e-commerce platform using ABP Framework. I continue to deepen my backend development skills in the .NET ecosystem while embracing challenging and impactful software development roles.

Publications

Non-Small Cell Detection published in PLOS ONE JOURNAL (Q1) Nov 2024

Mahir Afser Pavel, Rafiul Islam, Shoyeb Bin Babor, ***Riaz Mehadi***, Riasat Khan
10.1371/journal.pone.0306441

Projects

1. Classroom Management System with Teacher and Student Dashboards

- Developed a full-featured classroom management system inspired by Google Classroom, enabling teachers to create classes, post announcements, quizzes, and assignments, and manage student submissions.
- Implemented role-based views and permissions for **teachers** (create/manage content) and **students** (join classes, submit assignments, take quizzes).
- Enabled announcement posting with threaded/nested comment support to facilitate discussions.
- Built assignment upload functionality with PDF support, deadline tracking, and a teacher review panel.
- Designed a quiz module with multiple question types (MCQ, True/False), live attempt tracking, and score summaries.
- Developed the frontend using **Angular** and **TypeScript** with reusable, responsive UI components.
- Built a secure backend using **ASP.NET Core** and **Entity Framework**, focusing on clean architecture and scalable APIs.
- Used structured JSON handling for comments and submission metadata.

- GitHub Repository: github.com/shadr862/classroom

2. E-commerce Platform with Admin and Customer Panels

- Developed a comprehensive full-stack e-commerce system featuring user authentication, product browsing, shopping cart, order processing, and admin management.
- Implemented secure user roles and permissions for customers and administrators.
- Leveraged **Angular** and **TypeScript** for a responsive and dynamic frontend interface.
- Built robust backend services with **C#** using the **ABP Framework** (.NET), ensuring scalability and maintainability.
- Integrated seamless order workflows and product management modules.
- Version-controlled via GitHub: github.com/shadr862/Ecommerce

3. Stack Overflow Clone (Q&A System)

- Built a fully functional Q&A platform inspired by Stack Overflow, supporting features like posting questions and answers, commenting, voting, and tagging.
- Designed and implemented complex entity relationships, including self-referencing posts, many-to-many tagging, and one-to-many comment and vote structures.
- Developed the frontend using **Angular** and **TypeScript**, with components for tag-based filtering, user profiles, and real-time search.
- Implemented the backend in **C#** using the **ABP Framework**, focusing on modular service design and clean architecture principles.
- Added features such as accepted answers, vote toggling (upvote/unvote), and searchable tags with multi-select dropdown UI.
- Source code available on GitHub: github.com/shadr862/stackoverflow

Technologies

Programming Languages: C++, C, Java, Python, C#, SQL, TypeScript

Frameworks & Libraries: .NET (ABP Framework, .NET Core, .NET Framework), Angular, Bootstrap

Tools & Platforms: Git, GitHub, Visual Studio Code, Visual Studio, Microsoft SQL Server, Anaconda, Code::Blocks, Docker (if applicable)

Other: Machine Learning (TensorFlow, PyTorch basics), Competitive Programming, RESTful APIs, Agile Development