Karim Saad Ahmed

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Github

in linkedin

• Leetcode

Codeforces

Summary

Highly motivated and results-oriented Software Engineer with a working knowledge of .NET development and a strong foundation in problem-solving skills, algorithms, and data structures. Proven ability to excel in competitive programming challenges. Eager to leverage these skills, passion for learning, and .NET knowledge in a collaborative environment. Seeking an undergraduate software engineering role to contribute to real-world projects, further enhance my .NET expertise, and gain valuable industry experience.

EDUCATION

Faculty of engineering Minya University

 $\mathrm{June}\ 2024$

B.S. Computer Systems engineering

Current GPA: 3.2

Epic Institute of Technology (Software-Engineering Scholarship)

June 2023

Coursework

Courses: Object-Oriented Programming, Data Structures & Algorithms, Embedded Systems, Discrete Math, Linear Algebra, Logic design, Operating system, Computer architecture, Computer organization, Operational research, Networking, Digital control, Microprocessors, Mathimatics

SKILLS

Languages: C/C++, C#, SQL, Python, HTML/CSS

Tools: Git/GitHub, Visual Studio, VS Code

Programming Concepts: Problem-solving, Linear and non-linear Data structures, Searching & Sorting & Hashing & Graph & Trees Algorithms, Dynamic Programming Techniques, Greedy Techniques, Object-Oriented Programming, Object-Oriented Design, Solid principles, Design patterns, Time and Space Optimization, APIs, Agile

Development skills: Backend development by ASP.Net core web &Backend development using Node js, Express js, MongoDB - Desktop development by Net framework using MS-SQL, Entity Framework, LINQ

Peesonal skills: Critical thinking, Communication, Leadership, Active listening, Creativity, Time management, Speech

Projects

University Learning Management System | ASP.NET Core, React, SignalR, Linq, EF Core, MS-SQL

Apr. 2024

- Developed a comprehensive web application to manage user roles, academic structures, courses, assessments, exams and communication within a university setting.
- Implemented user management for Admins, Staff, Students, Professors, and Instructors.
- \bullet Established a hierarchical academic structure with faculties, departments, academic years, groups, course categories, courses, and sections with add remove students from groups/sections .
- Enabled Professors and Instructors to upload lectures with videos and files, create assignments, exams/quizzes, and post announcements to their assigned courses/sections with real-time notifications for students and students have access to replay and be active with these posts as long these posts on their groups or sections.
- Facilitated students recovering their courses and sections lectures with their files, interaction with their assignments, exams, and submission of exam and assignment solutions with feedback capabilities for Professors and Instructors.
- Integrated real-time chat functionality within each group, facilitating seamless communication among students enrolled in the same group.
- Utilized ASP.NET Core for backend development, React for frontend, SignalR for real-time communication, Linq and Entity Framework for data access, MS SQL Server as the database, and employed APIs, Unit of Work/Repository, Dependency Injection, CQRS, and Mediator design patterns for a scalable architecture built on a five-layer clean architecture foundation.

Mobile Store Management | .Net framework, ADO.net, SQLite, Guna framework, Git, Visual Studio May 2023

- Developed a Desktop Application for Moblie store with two types of users Admins and sellers to do CRUD operations on categories of products, products and manage goods on sotre
- Admin can (Create, Restore, Update and DELETE) Sellers, Categories of Mobiles and Accessories
- Admin can recover all bells with details of profits of the current month
- selleres has only access to selling forms, stores the bills with data of customers, and prints them to the customer.

Super Market Store Management | .Net framework, ADO.net, SQLite, Guna framework, Git, Visual Studio Aug. 2022

- Developed a Desktop Application for Super Market store with two types of users Admins and sellers to do CRUD operations on categories of products, products and manage goods on sotre
- Admin can (Create, Restore, Update and DELETE) Sellers, Categories of goods, products with their types and amount
- selleres has only access to selling forms, stores the bills with data of customers with his favorite products, and prints them to the customer.
- Admin can recover all bells with details of profits of the current month

COMPETITIONS AND ACHIEVEMENTS

- Qualified to final Arab and Africa round (The Africa and Arab Collegiate Programming Championship) 2022
- Participate in ECPC (Egyptian Collegiate Programming Contest) and reached Rank 36 over 750 teams 2022
- Participate in IEEEXtreme international competitive-programming contest with problems from HUAWEI and reached rank 12 over Egyptian teams and 250 globally over 7500 teams
- Solved more than 2500 problems in problem-solving sites like (Codeforces, Leetcode, and Hacker Rank) 2019-2022

EXPERIENCE

Competitive Programming Club | Manager

2022 - Present

Mentor at ICPC community at Minya University for more than 60 students to teach newcomers and juniors algorithms and data structures to improve their problem-solving skills and qualify them for global competitive programming contests using C++.

IEEE Minya Branch | Member, Instructor

2021 - 2022

learning how to build and program simple robots and teaching students simple programming concepts through on-site sessions and online sessions.

ICPC | Problem setter, judger

2022

create problems of ACPC' Girls kick-off 2022 contest and judge the participations solutions

CERTIFICATIONS

- Participation on ECPC
- Quilfication and Practicipation on ACPC
- Practicipation on IEEEXtreme
- Mastering critical SKILLS in Algorithms using C++: Part 1,2
 - Learned sorting and searching algorithms
 - Learned Graph, Dynamic programming algorithms
- Mastering critical SKILLS in Data Structures using C++
 - Learned how to implement most linear data structures like vector, stack, queue, etc.
 - Learned how to implement nonlinear data structures like trees, graphs, and tris.

The last two certificates from Udemy courses which created by Dr.Moustafa Saad who is ICPC qualified, an International competitive programming coach, and senior in Computer vision at NVIDIA