

Husnian Ali

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Profile

I am hard working and self-motivated student with over 3 years of experience. Good at thinking critically and solving problems, especially when faced with tough challenges. Strong communication and leadership skills, helping teams work together to achieve great results.

Education

National University of Computer and Emerging Sciences, BS in Computer Science Aug 2021 – May 2025

- GPA: 3.1/4.0
- Honoured Dean's list
- Coursework: Web development, Artificial Intelligence, Software Engineering, DevOps, Ethical Hacking, Software Development

Personal Projects

SpecBot – Automated Conversion of Sequential Code to Parallel Code with Hardware-Aware Performance Optimization Jun 2024 - Present

- Developed SpecBot, an automated tool that converts sequential code to parallel code while optimizing performance based on specific hardware configurations.
- Implemented an intelligent analysis of code structure to identify parallelizable portions, enhancing computational performance and utilizing the full potential of modern hardware.

Sports Hub – Front-End Development (GitHub) Aug 2024 – Sep 2024

- Developed the front end of a Sports Hub application using React, implementing user authentication, dynamic content display, and a responsive design to enhance user interaction and experience.
- Integrated various features, including real-time news updates, live scores, and vendor listings, improving accessibility and engagement for users.

Health Hub – Hospital Management System (GitHub) Jan 2024 – Feb 2024

- Developed a full-stack web application using the MERN stack, featuring user authentication, data management, and responsive design for enhanced user experience.
- Improved operational efficiency with a modern, intuitive interface and robust back-end architecture tailored for hospital management.

Docker: Revolutionizing Application Development (GitHub) Oct 2024 – Nov 2024

- Explained how Docker simplifies application development and deployment by providing a consistent environment for building, shipping, and running applications.
- Covered the advantages of Docker, including portability, isolation, and efficiency, along with comparisons to traditional virtual machines and deployment methods.

Automating Kubernetes Deployments on AWS (GitHub) Oct 2024 – Nov 2024

- Wrote a comprehensive guide on automating Kubernetes deployments on AWS using Amazon EKS and Terraform for managing infrastructure as code.
- Included best practices for setting up Amazon EKS, automating deployments, and ensuring scalability and reliability in cloud-native applications.

Auto-Timetable Generation – Timetable Optimization using Genetic Algorithm (GitHub) Jan 2024 – Mar 2024

- Developed an AI-based timetable generation system using Python, employing a genetic algorithm with binary encoding to optimize course, professor, and room assignments.

- Implemented a fitness function to ensure schedule constraints (e.g., avoiding clashes) and output the most efficient timetable after multiple generations.

Brick Breaker – Game Development using Assembly Language[\(GitHub\)](#)

Aug 2023 – Jan 2024

- Developed a Brick Breaker game using assembly language, featuring interactive gameplay where players control a paddle to break bricks and score points.
- Implemented game mechanics like ball movement, collision detection, and level progression, along with a scoring system that tracks player performance.

Skills & Tools

– Technical Skills:

- **Microsoft Office Packages:** Microsoft Word, Excel, PowerPoint
- **Programming Languages:** C++, C#, OOP, Data Structures, JAVA, Python, SQL
- **Web Technologies:** MERN, HTML, CSS, JavaScript, Bootstrap
- **Database Management:** SQL Server
- **Documentation:** UML Diagrams, SDA

– Tools:

- Adobe Photoshop, Adobe Illustrator, Visual Studio, Eclipse, Anaconda, Overleaf, Wireshark, Pentest

Professional Experience

Web Development Intern

May 2024 – July 2024

- Developed full-stack web applications using the MERN stack (MongoDB, Express.js, React, Node.js) to enhance user experience.
- Collaborated with team members to implement and maintain efficient APIs and backend services.

Teacher Assistant

[Sep 2023 - Current]

- Assisted faculty in designing challenging quizzes and assignments while evaluating student solutions using various testing techniques.
- Provided hands-on support to students during lab sessions, assisting with their practical work.

Programming Instructor Intern

[Jun 2024 - Aug 2024]

- Conducted interactive sessions to teach Scratch and other programming languages to students, fostering creativity and problem-solving skills.
- Developed and implemented lesson plans for various programming languages, adapting teaching methods to meet diverse learning needs.

Interests

- Full Stack Development
- LLMs (Large Language Models)
- Ethical Hacking
- Computer Networking
- Real World Solutions