Ali Hassan

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LinkedIn | Github

SOFTWARE ENGINEER

A highly motivated Computer Science graduate from **FAST National University**, with a **GPA of 3.67/4**. I specialize in **full-stack development**, using technologies like **Next.js, React, Node.js**, **MongoDB, Express.js** and **Flask** to build web applications. I'm skilled in creating user-friendly platforms with secure features and use **Git** for collaborative development.

TECHNICAL SKILLS

Languages: Python | JavaScript | TypeScript | C | C++ | HTML | CSS
Frameworks/Libraries/Tools: Next.js | Node.js | React | Selenium | Git | REST APIs
Databases: MySQL | MongoDB | Microsoft SQL Server

EDUCATION

National University of Computer and Emerging Sciences (FAST) — Lahore / Pakistan
Bachelor of Science in Computer Science | **GPA: 3.67/4** — Aug 2021 – July 2025

WORK EXPERIENCE

Full Stack Developer Intern – SYSTEMS Limited — July 2024 – Aug 2024

- Built a **full-stack e-commerce** website using the **MERN (MongoDB, Express.js, ReactJS, Node.js)** stack with separate panels for **users** and **admins**.
- Users could browse products, add to **cart**, and securely **checkout** with **authentication**.
- Admins could **add**, update, or **delete** products to manage the store and **control** what users see.

Teaching Assistant - FAST NUCES

- Evaluated **quizzes** and **assignments** for over **150**+ students across Design and Analysis of Algorithms, Artificial Intelligence , Data Structures courses.
- Guided students in understanding topics and solving assignments

PROJECTS

Brain Stroke Segmentation using Federated Machine Learning | *React, Flask, Swin-UNETR* | **Github**

- Developed a distributed deep learning framework using **Swin-UNETR** on the ISLES 2022 dataset(250 3D MRI).
- Designed a simulation-based federated learning architecture with data partitioned across multiple clients for decentralized training and also analyzed model performance in a centralized setting.
- Implemented **FedAvg**, **FedProx**, and **FedNova** to optimize global model performance, achieving ~0.70 accuracy.
- Developed a **React** frontend and **Flask** backend to provide authenticated users access to the trained global model.

Mentor Mesh | *MERN Stack* | **Github**

- Developed a MERN stack web app for FYP supervisor selection and mentorship
- Implemented secure **authentication**, **password recovery**, project posting and approvals
- Integrated **Socket**.io for real-time chat and notifications to enhance collaboration between students and faculty.

E-Commerce Website | *MERN Stack (Internship Project)*

- Developed an e-commerce website with authentication, shopping cart, and admin panel.
- Implemented CRUD operations for products, enabling seamless addition, updating, and deletion through an intuitive React-based interface and implemented a seamless checkout process.

Movie Streaming Platform | *Next.js, MongoDB* | **Github**

- Implemented user authentication using NextAuth.js for secure access control.
- Developed user operations including search, delete, rate, and favorite functionalities with optimized API handling.
- Applied CRUD operations in the admin panel with **MongoDB** and **Next.js** API routes for real-time updates.

ACHIEVEMENTS

- **Awarded a Gold Medal** and recognized on the **Rector's List** for achieving a perfect **4/4** SGPA in the final semester.
- Consistently recognized on the **Dean's List** for maintaining an SGPA above 3.50 in **6** out of **8 semesters**