# Muhammad Hassan Muzaffar

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## EDUCATION

## **FAST NUCES Lahore**

Lahore, Pakistan

Bachelor of Science in Computer Science

Aug. 2021 - July 2025

# EXPERIENCE

# Parallel and Distributed Computing Teaching Assistant

Jan. 2025 – Present

FAST NUCES Lahore

Lahore, Pakistan

- Designed 3+ assignments and 3 quizzes that improved student understanding of distributed systems, with average class performance increasing by 12%.
- Evaluated and graded over 50 student submissions, providing detailed feedback that helped boost average student scores by 15%.
- Ensured fair grading by implementing a rubric-based evaluation system and addressed 30+ student queries to clarify complex course topics.

# Frontend Developer Intern

June 2024 – Aug. 2024

Musketeers Tech

Lahore, Pakistan

- Developed a Salary Automation System that reduced HR manual processing time by 40% using Refine, React.js, TypeScript, and Ant Design
- Collaborated with 2 backend developers using Git and GitHub, leading to a 25% increase in deployment efficiency
- $\bullet$  Conducted 20+ code reviews and fixed critical bugs, decreasing reported system errors by 30% and improving app performance

#### Projects

Cyber-Matrix | Python, Flask, React, MongoDb, AWS, Kali Linux, Material UI

Aug. 2024 – Present

- Developed a web application integrating Nmap, Gobuster, and John the Ripper for automated PenTesting.
- Implemented CVE reporting to identify vulnerabilities in discovered services.
- Created a user-friendly dashboard to visualize scan results and security insights.
- Integrated a chatbot assistant for guided cybersecurity analysis.

Career Compass | React, Node.js, Express, MongoDb, Material UI, OpenAI

July 2024 – Present

- A job portal application built with the MERN stack, engineered to streamline the recruitment process.
- The platform allows admin users to post job listings.
- Users can view active job postings, apply for jobs using a dedicated form, and track their job applications.
- Incorporated a chatbot assistant to guide users in writing cover letters and creating resumes.
- Embedded a Resume Analyzer to assist admins in filtering applicants.

Crypt Connect | React, Firebase, Ant Design, crypto-js

Nov. 2024 - Jan. 2025

- Built a secure messaging platform designed to provide end-to-end encryption, secure key management, and user-friendly functionality, all while prioritizing data privacy.
- Used React.js framework with Ant Design for designing user interface and firebase for backend.
- Implemented the Diffie-Hellman concept for secure message transfer and encryption.

#### CERTIFICATIONS

AWS Academy Graduate: AWS Academy Cloud Foundations

Responsive Web Design: freeCodeCamp.org

#### TECHNICAL SKILLS

Languages: JavaScript, Python, C/C++, SQL, TypeScript, HTML/CSS

Frameworks: React, Next.js, Node.js, Flask, Redux, Ant Design, Material-UI, RESTAPI, MongoDb, MySQL,

PostgreSQL

Developer Tools: Git, GitHub, AWS, VS Code, Visual Studio, Postman, Anaconda, Figma, Google Colab

Libraries: pandas, Numpy, Matplotlib, Scikit-Learn, TensorFlow