Muhammad Omer Jauhar

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EDUCATION

• National University of Computer and Emerging Sciences

Peshawar, Pakistan

Bachelor of Science in Computer Science; GPA: 3.86

Aug. 2021 - May. 2025

- Honors: Dean's List and Gold Medalist (All Semesters) and Rectors list(4th semester)
- o Activities: ACM, GDSC, & COLAB

• Fazaia Inter College

Lahore, Pakistan

Higher-Secondary School Certificate (Pre-Engineering); Marks: 1052/1100

2021 - 2021

• Honors: Full Scholarship.

• Garrison Boys High School And Intermediate College

Lahore, Pakistan

2019 - 2020

Secondary School Certificate. Marks: 1067/1100

• Honors: LGES High Achievers Award.

EXPERIENCE

• Teaching Assistant FAST-NUCES

Peshawar, PK

Aug 2022 - Present

- Teaching Assistant for the following Subjects

 Design and Analysis of algorithms: .
 - Programming Fundamentals: .
 - o Differential Equations: .

Projects

- Crab DB: Crab DB, a Rust-based database management system with both SQL and No SQL features. Focused on gaining experience with Rust and developing skills in database design and management.
- Virtual DNA: Utilizing deep learning alongside machine learning techniques, Virtual DNA analyzes facial features, fingerprints, eye structure, skin tone, and ethnicity to determine genetic parentage. (Ongoing project)
- Genetic Lineage Verification via Fingerprint Analysis: The project uses the IJRA dataset with data augmentation to expand it. Employing a Siamese neural network with a CNN base, it verifies genetic relations via fingerprints.
- Rust-Server: A Rust-based TUI application dedicated to server management. (In progress)
- Hospital Management System: System software in C++ using Qt, linked to Google Firebase via REST API, with basic I/O file handling for certain features and data storage.
- HMS APP: Flutter App for hospital management system project linked to Google Firebase. Appointment booking and Bill Generation features

Programming Skills

- Languages: Rust, Python, C/C++, Assembly, Go Lang, Java and TypeScript
- Technologies: Pytroch, Scikit-learn, Matplotlib, Pandas, NumPy, OpenMp, Flutter, Node, Express, HTML, Firebase, MongoDB, Hugo, jekyl, Docker, git, github, kubernetes and proxmox

TECHNICAL SKILLS

- DSA and Algorithms: Proficient in implementing and optimizing data structures and algorithms. Have also taught algorithms on Preply.com
- Digital Image Processing: Digital image processing techniques for enhancing, analyzing, and manipulating images.
- Software Design and Architecture: Proficient in digital image processing techniques, leveraging advanced algorithms to enhance visual data interpretation and analysis.

References

Dr. Nouman Azam Associate Professor FAST-NUCES Peshawar nouman.azam@nu.edu.pk Fazl-e-Basit Assistant Professor & HOD CS FAST-NUCES Peshawar fazl.basit@nu.edu.pk