Muhammad Faraz Malik

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PROFESSIONAL SUMMARY

Computer Engineering student at UET Taxila with strong fundamentals in programming, networking, and digital systems. Passionate about solving real-world problems through clean, efficient code. Eager to contribute to projects that require focus, adaptability, and technical depth.

EDUCATION

Bachelor of Science in Computer Engineering

UET Taxila | Sep 2022 - Present | CGPA: 3.14

F.Sc. Pre-Engineering

PAEC Model College, Chashma | 2020 - 2022

Matriculation (Science)

PAEC Model College, Chashma | 2018 - 2020

SKILLS

Programming: C++, Python, Java, Verilog, HTML,

Tools/Platforms: MATLAB, Simulink, AutoCAD, OptiSystem, Arduino, PDQ Deploy, Active Directory

Techniques: STFT, MFCC, Convolutional Neural Networks, Digital Logic Design, Embedded Systems, Web Development, GUI Design, Signal Processing, Data Analytics, Software Automation, Modular Architecture, Microcontroller Programming

LANGUAGES

English (Fluent) Urdu (Native)

HOBBIES & INTERESTS

Enjoy coding, learning new technologies, and exploring complex systems. Outside academics, I enjoy football and cinematic storytelling through films and series.

PROJECTS

University Management System

- Comprehensive web-based platform for automating academic, administrative, and financial operations at universities.
- Features centralized data, secure access, and real-time analytics for all stakeholders.

Audio Denoising with STFT

- MATLAB-based solution applying Short Time Fourier Transform and advanced filtering to remove noise from real-world audio.
- Enhances clarity and preserves signal integrity for practical applications such as noise reduction in hearing aids and medical devices.

MIPS Processor

- Designed and implemented a single-cycle MIPS processor using Verilog, targeting efficient execution of a subset of the MIPS instruction set architecture.
- The processor features a modular architecture, comprising distinct components with detailed testing.

Speech Emotion Recognition

- Developed a deep learning system using Convolutional Neural Networks and other techniques to classify speech into seven distinct emotions.
- Utilized MFCC features and the TESS dataset for robust and improved user interaction.

Free Space Optical Communication System

- Designed and simulated a high-speed Free Space Optical (FSO) wireless system using OptiSystem.
- Analyzed performance under various weather conditions, demonstrating robust data transmission and signal quality.

Remote Software Deployment Automation

- Developed a centralized, automated system for deploying software from server to multiple client PCs using PDQ Deploy and Active Directory.
- Ensured security, scalability, and efficiency for large-scale IT environments.