

DIDAR ALI

Computer Systems Engineer

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Professional Summary

Computer Systems Engineer with hands-on experience in operating systems, AI/ML applications, software development, and scalable systems engineering. Skilled in C and C++, Python, and Linux environments with a track record of building real-time solutions, AI-powered applications, and secure system components. Adept at developing end-to-end products, optimizing performance, and integrating ML models into production-ready systems. Seeking an industry role in systems engineering, software development, embedded systems, or applied AI.

Education

- **B.Sc. Computer Systems Engineering**
University of Engineering & Technology (UET), Peshawar | 2021 – 2025
- **Higher Secondary School Certificate (Pre-Engineering)**
Govt. Degree College, Chitral | 2019 – 2021
- **Secondary School Certificate (Science)**
Al Karim Public School Susoom Chitral | 2017 – 2019

Projects & Experience

- **Virtual File System (Linux OS Project)**
Built a simplified Linux-style file system in C, implementing file permissions, process management, and error handling.
Demonstrated low-level systems programming and OS concepts for real-world applications.
Repo: github.com/didar-ali-deed/Virtual-File-System--OS-Project--C-language--Linux--Ubuntu
- **Speech Emotion Recognition (Final Year Project)**
Developed a transformer-based Wav2Vec2 model with 83.2% accuracy on noisy speech datasets. Worked on data preprocessing, attention mechanisms, and model evaluation.
Repo: github.com/didar-ali-deed/Vocal-Sentiment-Transformer-Based-Speech-Emotion-Recognition
- **AI Health Super App**
Created a diagnostic platform using CNN, XGBoost, and DNN to predict health conditions like Diabetes and Parkinson's. Integrated Streamlit frontend and SQLite backend with real-time inference capabilities.
Repo: github.com/didar-ali-deed/health-ai-super-app

Technical Skills

- Programming: Python, C, C++, R, SQL, MATLAB
- Systems & Software Engineering: Operating Systems, Linux/Bash, Data Structures & Algorithms,
- Virtual File Systems, Process Handling, OOP
- AI/ML: Transformers (Wav2Vec2), CNN, DNN, XGBoost, NLP, TensorFlow, PyTorch, Predictive Modeling
- Data & Visualization: Pandas, NumPy, Scikit-learn, Matplotlib, Tableau
- Deployment & Tools: Streamlit, SQLite, Docker (basic), AWS (basic), Git/GitHub, Jupyter Notebook, Linux

Certifications

- Google Data Analytics Professional Certificate – Coursera
- Google Cybersecurity Professional Certificate – Coursera
- AI For Everyone – DeepLearning.AI
- Programming for Everybody (Python) – Coursera
- Python Basics – Coursera

Publication

Speech Emotion Recognition Using Transformer-Based Wav2Vec2 Model

VFAST Transactions on Software Engineering (VTSE)

Link: <https://vfast.org/journals/index.php/VTSE/article/view/2174>