
DIDAR ALI

AI / Machine Learning Engineer

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Professional Summary

AI and Machine Learning Engineer with hands-on experience in deep learning, speech emotion recognition, predictive modeling, and AI-driven healthcare applications. Skilled in Python, SQL, Transformers, TensorFlow, PyTorch, and data analytics with a strong academic foundation in Computer Systems Engineering. Successfully developed end-to-end ML solutions, including Wav2Vec2-based emotion recognition with 83.2% accuracy and AI diagnostic tools using CNN, XGBoost, and DNN. Certified in Google Data Analytics and Cybersecurity with a focus on scalable, deployable AI systems and MLOps.

Education

Bachelor of Science in 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, Susum, Chitral | 2017 – 2019

Projects & Experience

- **Vocal-Sentiment-Transformer-Based-Speech-Emotion-Recognition (Final Year Project)**
Achieved 83.2% accuracy using a Wav2Vec2 transformer-based model for emotion classification. Implemented audio preprocessing, feature extraction, attention mechanisms, and model evaluation for noisy speech data.
<https://github.com/didar-ali-deed/Vocal-Sentiment-Transformer-Based-Speech-Emotion-Recognition>
- **AI Health Super App**
Developed an AI diagnostic system using CNN, XGBoost, and DNN to predict conditions such as Diabetes, Parkinson's, and Pneumonia. Built a Streamlit interface with SQLite logging, authentication, and real-time model inference.
<https://github.com/didar-ali-deed/health-ai-super-app>
- **Virtual File System (Linux OS Project)**
Created a simplified file system in C with core operations, permissions, and process management under a Linux-based environment, and real-time model inference.
<https://github.com/didar-ali-deed/Virtual-File-System--OS-Project--C-language--Linux--Ubuntu>

Technical Skills

- **Programming Languages:** Python, C, C++, R, SQL, MATLAB
- **AI / ML / DL:** Transformers (Wav2Vec2), Neural Networks, CNN, XGBoost, DNN, TensorFlow, PyTorch, Attention Mechanisms, Predictive Modeling, Model Evaluation, Feature Engineering, Reinforcement Learning, Supervised Learning, Natural Language Processing
- **Data Analytics & Visualization:** Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, Tableau, Statistical Analysis, Data Cleaning, EDA

- **MLOPS & Deployment:** Model Serving, API Integration, Streamlit, SQLite, Docker (basic), AWS (basic)
- **Tools & Platforms:** Git, GitHub, Jupyter Notebook, Google Colab, Linux, Bash
- **Core Concepts:** OOP, Data Structures and Algorithms, Operating Systems, Process Handling

Certifications

- Google Data Analytics Professional Certificate – Coursera
<https://coursera.org/share/c041b2418652b9c548dfb1d55cee08f3>
- Google Cybersecurity Professional Certificate – Coursera
<https://coursera.org/share/2d2c5b16c4a38bd7fb220c0dde525a5e>
- AI For Everyone – DeepLearning.AI – Coursera
<https://coursera.org/share/ae30d09d298efb342d23aac45d329a06>
- Programming for Everybody (Getting Started with Python) – Coursera
<https://coursera.org/share/e7d89546c317aa43e854d3175193c112>
- Python Basics – Coursera
<https://coursera.org/share/79aee3d9e0844f06a8a19ca1bc240aad>

Publications

Title: Speech Emotion Recognition Using Transformer-Based Wav2Vec2 Model

Publisher: VFAST-Transactions on Software Engineering (VTSE)

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