Muhammad Tahir Tayyab

Artificial Intelligence/Machine Learning Engineer

Contact: 923339984358 Email: ttlashari5@gmail.com Portfolio: mtayyab2.github.io/portfolio/

Relevant Experience

Machine Learning Intern
Jex Global - Remote (07/2024 - 09/2024)
- Designed and fine-tuned large language models (LLMs) to enhance chatbot performance, improving user interaction metrics by 13%.
- Managed CI/CD pipelines for efficient deployment of machine learning applications, ensuring production-level code quality.
- Developed and maintained Django backend endpoints, leveraging Git for version control and Postman for API testing.

Projects

Personal Chatbot
Developed a local LLM-based chatbot using TensorFlow that allows personalized user interactions, enhancing user experience.

Chat with Your PDF Document
Created an LLM-based chatbot that extracts relevant information from PDF files and answers queries, improving information accessibility.

Hospital Readmission Prediction for Diabetes Patients
Engineered a binary classification system using Scikit-Learn to predict patient readmission risks, leading to improved patient care outcomes.

Detecting Tribal Villages in Satellite Images
Developed a computer vision system to detect remote tribal African villages using satellite imagery, employing advanced image processing techniques.

Advanced Camera Calibration Techniques for Virtual Worlds
Utilized epipolar geometry to derive precise camera poses for applications in virtual environments, contributing to enhanced realism in simulations.

Education

MSEE AI and Autonomous Systems
National University of Sciences and Technology Pakistan, 2021-Present

BS Electrical Engineering
Institute of Space Technology Pakistan, 2016-2020

Tech Stack

- Programming Languages:

- Python
- R

- Machine Learning Frameworks:

- TensorFlow
- Scikit-Learn
- PyTorch
- Huggingface

- Cloud Platforms:

- AWS
- Azure
- Google Cloud

- Libraries:

- Django
- CUDA
- NumPy
- Git (Version Control)
- Pandas

- Architectures:

- CNN
- ANN
- Attention Models
- RNN
- Transformer

- Algorithms:

- Random Forest
- SVM
- Gradient Boost
- Decision Trees
- KNN
- K-Means Clustering

Languages

English: *Native or Bilingual*
Urdu: *Native or Bilingual*