

ZAYAN AHMAD GHOUS

Phone: +92 300-2902674 | Email: zayanahmad.ghous@gmail.com | Location: Lahore, Pakistan | LinkedIn: linkedin.com/in/zayan-ahmad
GitHub: github.com/ZayanAhmadGhous | Portfolio: zayanahmad.me

PROFESSIONAL SUMMARY

BSCS student with hands-on experience in Machine Learning, Data Engineering, and MLOps. Skilled in building data preprocessing pipelines, deploying machine learning models, and developing REST APIs using Python, TensorFlow, and FastAPI. Experienced with cloud-based ML applications and focused on delivering scalable, efficient solutions. Seeking an opportunity to apply technical expertise while gaining industry experience.

TECHNICAL SKILLS

- Programming Languages:** Python, C++, C, SQL
- Machine Learning & AI:** TensorFlow, Keras, scikit-learn, NumPy, Pandas, Convolutional Neural Networks (CNN), classification, regression, model optimization, cross-validation
- Data Engineering:** Data preprocessing, feature engineering, exploratory data analysis (EDA), data cleaning, feature scaling, categorical encoding, data augmentation
- API Development:** FastAPI, Django REST Framework, REST API design, HTTP methods, API testing (Postman), Gradio
- Tools & Platforms:** Git, GitHub, Jupyter Notebook, Google Colab, Hugging Face Spaces, Streamlit, Linux terminal
- Data Processing Tools:** Pandas (data manipulation), NumPy (numerical operations), Matplotlib (data visualization)

PROFESSIONAL EXPERIENCE

Machine Learning Engineer Intern University of Engineering & Technology (UET) Lahore **May 2025 – July 2025**

- Developed and trained multiple machine learning models including Decision Trees, Random Forests, and Neural Networks using Python and scikit-learn, achieving 85%+ accuracy on real-world datasets.
- Built end-to-end data preprocessing pipelines including missing value handling, feature scaling, categorical encoding, and data transformation for datasets with 10,000+ samples.
- Designed CNN-based image classification models for MRI brain scan analysis using TensorFlow/Keras with data augmentation techniques to improve model robustness.
- Deployed machine learning applications using FastAPI and Gradio for real-time inference and interactive web-based predictions.

Machine Learning Engineer (Freelance collaboration) **July 2025 – Present**

- Developed machine learning models for classification and regression problems using python and scikit-learn.
- Performed Data Processing, Feature Engineering, and EDA.
- Build REST APIs with FastAPI for model interface.
- Containerized ML applications using Docker.
- Collaborate with clients to gather requirements and deliver AI solutions.

PROJECTS

Brain Tumor Detection (CNN + FastAPI + Deployment) **Live:** huggingface.co/spaces/Ghous/brain_tumor

- Built a CNN-based brain tumor classification model achieving 88% accuracy on MRI dataset (500+ images) using TensorFlow/Keras.
- Improved model generalization using data augmentation, dropout regularization, batch normalization, and early stopping.
- Developed REST API using FastAPI for real-time inference and integrated with a Gradio UI for user-friendly predictions.
- Deployed end-to-end ML application on Hugging Face Spaces for public web access.

House Price Prediction API (End-to-End MLOps Pipeline) **Image Link:** [zayanahmad123/house-price-api](https://zayanahmad123.github.io/house-price-api)

- Built a house price prediction model using sk-learn with feature engineering and categorical encoding on a real-world housing dataset.
- Developed automated preprocessing pipelines using Pandas, SciPy, and MEstimateEncoder for reliable model training and inference.
- Created a FastAPI-based REST API for real-time house price predictions with production-ready inference workflows.
- Containerized the complete application using Docker and published the image on Docker Hub for reproducible deployment.

EDUCATION

Board of Intermediate and Secondary Education Intermediate in Computer Sciences (Punjab Group of colleges)	Lahore, Pakistan 2022 – 2024
Minhaj University Lahore BS in Computer Sciences	Lahore, Pakistan 2024 – Present