

Ibrahim Zia Khan

ziaibrahim90@gmail.com

my-portfolio-ibrahim.vercel.app

github.com/Ibrahim-ziaa

+92-319-4447204

Upwork Profile

EDUCATION

- **National University of Computer and Emerging Sciences**

Lahore, Pakistan

Bachelor of Science in Data Science

Aug. 2022 – May. 2026

- **Relevant Courses:** Linear Algebra, Data Structures, Data Mining, Artificial Intelligence, Parallel Distributed Computing, Natural Language Processing, Database Systems, Algorithms, Discrete Structures, Adv. Statistics, Data Analysis and Visualization, AI Algorithms, Operating Systems, Data Warehousing & Big Data Analytics

EXPERIENCE

- **Freelance Data Scientist**

Remote

Upwork.com/freelancers/ibrahimzia

Jan. 2024 – Present

- Delivered 7+ AI and data analytics projects for international clients (USA, Singapore, Japan, Ireland, Pakistan) with an average rating of 4.7+. Work included developing ML models, real-time dashboards, and NLP pipelines using tools like Azure Databricks, HuggingFace, Power BI, and Streamlit. Successfully executed enterprise-level contracts with full ownership of solution design, development, client communication, and delivery.

PROJECTS

- **AI-Based Skin Cancer Diagnostic System** Designed an intelligent diagnostic platform to detect skin cancer from lesion images using both deep learning and traditional ML approaches. The pipeline included preprocessing with the Dull Razor method for hair removal, k-means clustering for segmentation, and feature extraction using ABCD and GLCM metrics. EfficientNet-B0 handled image classification, while SVM and LightGBM were trained on handcrafted features. Explainability was achieved through Grad-CAM for CNN visualization and SHAP/LIME for tabular insights.
- **Twitter Sentiment Analysis and Visualization** Built a sentiment classification system using BERT and LSTM models on a corpus of tweets. Preprocessing included tokenization, noise filtering, and sequence padding. After classification, results were visualized using Power BI, where keyword clouds, sentiment trends, and location-based polarity breakdowns were presented. This tool was optimized for real-time dashboards for social media teams.
- **Osteoarthritis Detection via X-rays** Developed a model to detect signs of osteoarthritis in knee X-rays using ResNet50 for image classification. To improve generalization, data augmentation techniques like flipping, rotation, and brightness adjustment were used. The trained model was further enhanced by Grad-CAM visualizations, which allowed medical experts to validate the prediction focus areas.
- **Voice-to-Text Summarizer Platform** Built a full-stack Streamlit application that takes voice input and returns a clean, concise summary. For transcription, HuBERT and Wav2Vec models were employed, while summarization was handled using BART and Mistral API. The system was designed with both GPU and CPU runtime fallback and supports various audio formats including MP3, WAV, and FLAC.
- **Google Ads Performance Dashboard** Developed a Looker Studio dashboard integrated with Google Sheets and Google Ads API. The dashboard provided real-time insights on CTR, CPC, ROAS, and conversion rates. It featured automated anomaly detection, funnel visualizations, and daily email reports for marketing executives.

CERTIFICATES

- IBM Python Data Scientist Coursera Verified Certificate
- IBM Data Visualization Coursera Verified Certificate

SKILLS

- Languages Python, R, SQL, C++
- Technologies PyTorch, TensorFlow, HuggingFace, Scikit-learn, OpenCV, Azure Databricks, Power BI, Tableau, Looker Studio, Streamlit, PostgreSQL