

Muhammad Uzair

Data Scientist & GenAI Engineer

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📍 Islamabad, Pakistan

📅 15 Jun 2003

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PROFILE

With 1 years of experience in Machine learning, Deep Learning and Generative AI, I have successfully implemented NLP and Generative AI projects using the MLOps Pipeline to make data-driven decisions. I excel in Machine learning, Neural Networks, Transformers, Python, Lang Chain, Llama Index, RAG, Vector Databases, Hugging Face, and building reliable LLM applications. Seeking to leverage my expertise to contribute to a forward-thinking team and drive impactful solutions in a dynamic, tech-driven environment.

SKILLS

Python: (DSA), **Statistics, Deep Learning:** (ANN / Pytorch)

Machine learning: Stacking Models, Boosting Models, Classification, Regression, Data Preprocessing, Feature engineering, Pandas, Numpy, Scikit-learn.

Natural Language Processing: (RNN / LSTM / Encoder Decoder / Attention / Transformer / BERT / GPT)

Generative AI: (Open AI, Mistral, Llama, Gemini, Embeddings, HuggingFace, RAG, Finetuning, AI Agents)

LLM Framework: (Langchain / LlamaIndex)

Vector Databases: (FAISS / ChromaDB / Pinecone)

RestAPIs: (FastAPI)

FrontEnd: (ReactJs)

Databases: (MySQL / SQL / MongoDB)

Cloud: (AWS / Azure)

Version Control: (Git, Github)

PROFESSIONAL EXPERIENCE

Research Assistant, SmartLab-ICP

Nov 2024 – Present | Peshawar, PK

- Published research on Urdu Fake News Detection using advanced machine learning and deep learning techniques.
- Fine-tuned LLMs for code generation using Parameter-Efficient Fine-Tuning methods like LoRA and QLoRA.
- Built and fine-tuned transformer models (BERT, GPT, T5) and RAG-based systems for QA and retrieval tasks.
- Applied deep learning with RNN, LSTM, and GRU models using TensorFlow and scikit-learn for NLP solutions.
- Designed and deployed scalable AI/ML solutions for real-world NLP and multimodal applications using Python.
- Implemented GenAI workflows using LangChain, FAISS, Weaviate, and OpenAI APIs for RAG and autonomous agents.
- Performed robust model training, tuning, and evaluation with tools like TensorBoard, MLflow, and W&B.
- Integrated AI pipelines into backend systems with FastAPI, enabling cloud-ready deployment (AWS).

Machine Learning Intern, CodeVenator

Jun 2023 – Oct 2024 | Peshawar, PK

- Developed interactive Streamlit dashboards for classification and regression model deployment.
- Built robust web scraping pipelines to extract and structure data from diverse online sources.
- Executed comprehensive data preprocessing, cleaning, and augmentation to ensure consistency across formats.
- Worked on Market Sales prediction and data analysis projects.

PROJECTS

Demand Letter Automation for Sales Force

Tech: Python, Pandas, FastAPI, ReactJs, FPDF, CSV Integration.

Solution Build:

- Developed an intelligent system to generate demand letters dynamically based on sales data, quotas, and territory performance.
- Designed user-friendly interfaces through ReactJs for data input and letter customization, streamlining communication between management and the sales force.

Fake News Detection Application

Tech: Python, scikit-learn, PyTorch, Streamlit, NLTK, Hugging Face Transformers.

Solution Build:

- Developed an end-to-end application to detect fake news using machine learning and deep learning techniques.
- Fine-tuned transformer models (BERT) on multilingual datasets including Urdu and English for high accuracy.
- Designed a user interface to input news content and receive real-time predictions on its authenticity.

HONORS AND AWARDS

Generative AI Course – *Krish Naik*

Advanced Python Programming Course and Certificate – *NAVTTTC*

Machine Learning Specialization – *Coursera (by Andrew Ng)*

Deep Learning Specialization – *Coursera (by Andrew Ng)*

Natural Language Processing (NLP) – *Youtube (CampusX)*

Python Programming Certification – *Pearson VUE*

EDUCATION

BS Computer Science

Jul 2021 – Jul 2025 | Peshawar, KPK

Islamia College and University Peshawar

- CGPA: 3.51
- ♦ Relevant Coursework: DSA, DBMS, OS, Artificial Intelligence, Internet Programming, Network Security, Java, C++