SHAHMEER KAMRAN

[](mailto:shahmeergull20@gmail.com) [shahmeergull20@gmail.com  +92-309-0654885  Lahore [](https://linkedin.com/in/shahmeer-gull-4aa83726b) [Shahmeer Gull](https://linkedin.com/in/shahmeer-gull-4aa83726b)](mailto:shahmeergull20@gmail.com)

# Profile

I am a **Machine Learning Enthusiast** specializing in **fine-tuning large language models (LLMs), Retrieval- Augmented Generation (RAG), and LangChain** to build scalable AI solutions. With hands-on experience in **Python, TensorFlow, and Scikit-Learn**, I follow **best practices** to ensure **efficient model optimization, data preprocessing, and feature engineering**. Passionate about **LLMs, prompt engineering, and generative AI**, I continuously refine my skills to develop **impactful, real-world AI applications**.

# Skills

## Machine Learning & AI

 LLMs & Fine-Tuning: RAG, LangChain, Chroma DB, Prompt Engineering, RLHF, Model Optimization

 Deep Learning: Transformer Models, Attention Mechanisms, Sequence Modeling

 AI Libraries: PyTorch, TensorFlow, Hugging Face, Scikit-Learn, Keras

## Full-Stack Development (MERN)

 Frontend: React.js, Tailwind CSS, Responsive Design

 Backend: Node.js, Express.js, RESTful APIs  Tools: Git, GitHub, Vercel

## Programming Languages

 Python , JavaScript, SQL, C++

## Data Analysis & Engineering

 Data Handling: Pandas, NumPy, Feature Engineering, Efficient Preprocessing

 Databases: SQL, MongoDB, Firebase

# Education

## COMSATS University

*Bachelor's in Computer Science*

# Certificates

 [AI for Public Health [](https://www.coursera.org/account/accomplishments/verify/XU9AC5HQYUC3)](https://www.coursera.org/account/accomplishments/verify/XU9AC5HQYUC3)

# Professional Experience

**ByteSight Pvt Ltd** *MERN Stack Intern* islamabad

 Developed and styled responsive front-end interfaces using React.js and Tailwind CSS.

 Integrated APIs and enhanced user experience with dynamic, interactive components.

 Collaborated with team to maintain code quality and implement UI improvements.

## RASTA TECH

*AI Engineer intern*

remote

 Supported development and optimization of ML/DL models for business applications.

 Handled data preprocessing, feature engineering, and model evaluation.

 Collaborated on AI solutions using tools like PyTorch and scikit-learn

[Fundamentals of AI Agents Using RAG and LangChain [](https://www.coursera.org/account/accomplishments/verify/8X9CXVBYDUQO) [Generative AI Advance Fine-Tuning for LLMs [](https://www.coursera.org/account/accomplishments/verify/S2X4OEBN7L7L)](https://www.coursera.org/account/accomplishments/verify/S2X4OEBN7L7L)](https://www.coursera.org/account/accomplishments/verify/8X9CXVBYDUQO)

[Generative AI and LLMs: Architecture and Data Preparation [](https://www.coursera.org/account/accomplishments/verify/51UIUBC25J82)](https://www.coursera.org/account/accomplishments/verify/51UIUBC25J82)

# Projects

## MarkVista – AI-Powered Crypto Prediction & Risk Management Platform

*Final Year Project | FastAPI, Python, ML Models, React JS, MySQL, Figma, CoinGecko API, Postman*

 **Developed** ML prediction models for crypto price prediction with real-time market data

 **Engineered** user-configurable risk profiles to manage portfolio risk dynamically

 **Integrated** broker APIs for automated trading execution with responsive risk controls

 **Visualized** analytics through a dynamic portfolio dashboard

 **Built** secure infrastructure and simulated community Q&A

 **Streamlined** user workflows into a unified interface

## Private Document Summarization with RAG, LangChain, and LLMs

*Fundamentals of AI Agents Using RAG and LangChain certification project | IBM Watsonx.ai, LangChain, Hugging Face Embeddings, Chroma DB, LLMs, Python*

 Built a secure **RAG pipeline** using **LangChain**, **Chroma DB**, and **Hugging Face** embeddings to summarize private documents locally.

 Integrated **IBM Watsonx.ai** LLMs (FLAN-UL2, Llama-3-70B) for summarization and Q&A with prompt tuning and memory.

 Created a context-aware chatbot using **RetrievalQA** and **ConversationalBufferMemory**.

 Automated internal document analysis, reducing manual review time while maintaining privacy compliance.

## RAG-based Content Evaluation for Children’s Media

*Fundamentals of AI Agents Using RAG and LangChain certification project | PyTorch, BERT, Hugging Face, Scikit-learn, Matplotlib*

 **Embedding Generation**: Used BERT from Hugging Face's Transformers library to generate embeddings for song lyrics and predefined questions.

 **Similarity Measurement**: Implemented dot product and cosine similarity to measure the relevance between song embeddings and question embeddings.

 **Visualization**: Applied t-SNE for visualizing high-dimensional embeddings in a 3D space to analyze clustering and patterns.

 **RAG Workflow**: Combined a retriever (to fetch relevant embeddings) and a generator (to provide responses) for efficient content evaluation.

## Air Quality Analysis & Modeling – Bogotá Pollution Data

*AI for Good Certification Project | Python, Pandas, NumPy, Scikit-learn, Keras, Matplotlib, Seaborn, GeoPandas*

 **Cleaned** multiyear pollution, weather & location data from public sources

 **Analyzed** trends using **correlation**, **time series**, and **geospatial** visualizations

 **Imputed** missing values using **linear interpolation**, **KNN**, and **neural networks**; evaluated with

## MAE/RMSE

 Developed a **hybrid model** combining **KNN** and **neural networks** for robust pollution estimation

 **Trained** and validated models using **cross-validation** at under-monitored sites

 **Visualized** results with **GeoPandas**, **Folium**, and a **Jupyter dashboard**

## Cold Email Generator for Business Outreach

*Personal project | Groq API, LangChain, Streamlit, Chroma DB, Python (Llama-3.1-8B, Web Scraping, JSON Parsing)*

 Built an end-to-end tool to generate personalized B2B emails by analyzing job postings.

 Scraped career pages and extracted job info using **LangChain** + **Groq API (Llama-3.1-8B)**.

 Parsed data into JSON, matched with portfolio links via **Chroma DB** for contextual retrieval.  Developed a **Streamlit UI** for input and email generation.

 Tuned prompts to simulate a business development tone.