SAAD SHAKEEL

Abbottabad, Khyber Pakhtunkhwa, Pakistan

+92 311 5307530 | muhammadsaadii1210@gmail.com | linkedin.com/in/saad-shakeel12 |
github.com/Saad-Shakeel | saad-shakeel-dev.vercel.app

SUMMARY

I'm an AI & Data Science Developer who enjoys turning complex ideas into simple, working solutions. I have hands-on experience building RAG-based chat systems, multi-agent workflows, and voice-enabled applications. My foundation includes machine learning, deep learning, and Generative AI, with practical exposure to tools like LangChain, LangGraph, and Azure cloud services. I focus on solving real problems, improving user experience, and building systems that actually work in practice. I'm eager to contribute to impactful AI initiatives and grow in a professional environment.

EDUCATION

Bachelor of Science in Computer Science   **November 2021 – July 2025**
Abbottabad University of Science and Technology (AUST) – Abbottabad, Pakistan

WORK EXPERIENCE

Generative AI Developer (R&D)   **January 2025 – Present**
Advanced Telecom Services (ATS) AI Lab - Washington, United States
*R*emote - Internship

- Focused on R&D in Generative AI and Large Language Models (LLMs), developing RAG-based applications, building AI agents, and experimenting with new techniques to improve reasoning, automation, and user experience
- Skilled in LangChain, LangGraph, and CrewAI to create intelligent, scalable prototypes deployable on Microsoft Azure with production-ready architecture

Data Science Intern   **July 2024 – December 2024**
Advanced Telecom Services (ATS) AI Lab - Washington, United States
*R*emote - Internship

- Gained hands-on experience in Microsoft Azure, Big Data, and advanced data analysis, with a focus on deriving insights from large-scale datasets and deploying cloud-based solutions.
- Actively explored Large Language Models (LLMs) to stay at the forefront of AI innovation and contribute to impactful, real-world projects

PROJECTS

Agentic RAG Systems | *LangChain, LangGraph, FAISS, Pinecone, MongoDB Atlas*
github.com/Saad-Shakeel/Agentic-RAG-Notebooks

- Developed three RAG pipelines: FAISS vector search, Pinecone hybrid retrieval, and MongoDB Atlas vector store
- Built ReAct-based agents with conversation memory and tool usage for dynamic document retrieval
- Improved retrieval accuracy using hybrid search (Gemini embeddings + BM25)
- Designed a modular, scalable architecture with checkpointing and state management for production use

AI-Powered Trip Planner | *LangGraph, Google APIs, Gmail Integration, Streamlit*
github.com/Saad-Shakeel/AI-Trip-Planner

- Built an intelligent travel assistant using LangGraph with modular, agentic architecture
- Integrated Google Maps, Places, and Gmail APIs for route planning, hotel suggestions, and itinerary sharing
- Generated personalized day-wise itineraries with smart sequencing, meal breaks, and local recommendations
- Developed a memory-enabled conversational interface for multi-turn, interactive trip planning

Stock Market Intelligence Agent | *LangGraph, Streamlit, Yahoo Finance API*

- Developed real-time stock dashboard and conversational agent for S&P 500 analysis
- Used LangGraph agentic workflows for natural language queries on stock data and financial metrics
- Integrated Yahoo Finance API for live prices, historical trends, and actionable insights via Streamlit UI

PakCurrency VisionAI | *YOLOv11, VGG16, TensorFlow, OpenCV, Computer Vision*
github.com/Saad-Shakeel/PakCurrency-VisionAI

- Built a currency detection system using YOLOv11 for real-time denomination identification
- Fine-tuned VGG16 for authentic vs counterfeit note verification with high accuracy
- Deployed unified inference pipeline via ONNX and TensorFlow Lite for efficient production use

EMOBEAT - Emotion-Driven Music Application | *OpenCV, TensorFlow, Keras, YouTube API, Streamlit*
github.com/Saad-Shakeel/Emotion-Driven-Music-App

- Developed an AI music recommendation system using real-time facial emotion detection (7 emotions)
- Integrated YouTube API for emotion-based music discovery, playlist generation, and playback
- Built a Streamlit web app with webcam-based detection, mood filtering, and personalized recommendations

TECHNICAL SKILLS

- **AI/ML & Generative AI:** LangChain, LangGraph, CrewAI, Hugging Face, Transformers, BERT, Large Language Models (LLMs), RAG Systems, AI Agents, Prompt Engineering
- **Deep Learning:** YOLO (YOLOv11), OpenCV, Object Detection, Image Classification
- **Cloud & MLOps:** Microsoft Azure, AWS, Docker, Git, Model Context Protocol (MCP), Agent Communication Protocol (ACP)
- **Development Tools:** FastAPI, Streamlit, REST APIs, Version Control (Git/GitHub)
- **Languages:** English (Fluent), Urdu (Native)

CERTIFICATIONS

- Google Advanced Data Analytics Specialization
- Fundamentals of AI Agents Using RAG and LangChain
- Building Autonomous AI Agents with LangGraph
- Practical Multi AI Agents and Advanced Use Cases with crewAI
- Finetuning Large Language Models
- Attention in Transformers: Concepts and Code in PyTorch
- Transformer Models & BERT
- MLOps Concepts
- MLOps Deployment and Life Cycling
- Git & GitHub
- ChatGPT + Zapier: Agentic AI Automation