

Muhammad Rizwan

AI/ML Engineer

Contact Details

 [+92-3166701319](tel:+923166701319)

 malikrizwancosc046@gmail.com

 Lahore, Pakistan

 GitHub/Muhammad Rizwan

 LinkedIn/Muhammad Rizwan

 Portfolio-Muhammad Rizwan

Technical Skills

- Generative AI
- Data Analytics
- Natural Language Processing
- Research Agents
- ChatBot Development
- Human pose and hand sign tracking

Tools and Frame works

- LangChain, Autogen
- Gradio, Streamlit
- FastAPI, Flask
- Scikit-learn
- TensorFlow, Keras
- Vector Database
- OpenCV
- MediaPipe, YOLO

Programmin g Languages

- Python
- C++ (Basic)
- SQL (Basic)
- HTML
- CSS

Certificates

- Introduction to Python Programming Languages
- Introduction to LLM PromptDesign in
- Vertex Ai

Interest

- Open-source contributions
- Model development Exploring emerging technologies like [AI, VR,etc.]
- Research in AI Field
- Neurons Study
- Neuro ns Sensing devices deployment

About Me

AI/ML Engineer with 2+ years of industry experience in developing and deploying intelligent systems using cutting-edge technologies including RAG, Transformers, MediaPipe, YOLO, OpenCV, FFmpeg, and LLMs. Specialized in computer vision, video analytics, and chatbot development. Proven expertise in building real-time video processing pipelines, hand/body detection systems, and LLM-integrated applications. Passionate about AI automation and continuously exploring innovations in NLP, GenAI, and computer vision.

Experience

AI Developer at Code5 Technologies

Jan 2025 – Feb 2026, Lahore(On-site)

- Developed a video analytics system using OpenCV + MediaPipe to detect and process body movement and gestures in real-time.
- Implemented YOLO-based human body detection integrated into custom video editing workflows.
- Integrated LLM-powered reasoning layers to interpret visual signals, generate contextual metadata, and drive decision-making across video pipelines.
- Developed AI chatbots and agent-based systems that interact with processed video data, enabling natural-language querying, summarization, and intelligent automation.
- Built and deployed multiple end-to-end AI workflows involving frame extraction, processing, and re-rendering with automated intelligence.

AI/ML Engineer at VirtualSoft PVT. Limited

Nov 2023– Aug 2024, SadiqAbad (onsite)

- Developed and deployed LLM-driven chatbots using Gradio and LLaMA models, improving response accuracy and reducing deployment complexity.
- Designed data visualization dashboards with Matplotlib and Seaborn to present insights from structured and unstructured data.
- Performed data preprocessing and image analysis to enhance performance of segmentation and object detection pipelines.
- Trained and fine-tuned machine learning and deep learning models for NLP and image classification tasks with strong generalization.
- Built end-to-end ML/DL workflows, covering data preparation, model training, evaluation, and production deployment.

GenAI interne at IT Solera PVT.Ltd

June 2023 – Aug 2023, Islamabad (On-site)

- Optimized prompt engineering for LLaMA models to improve relevance, accuracy, and stability in RAG-based systems.
- Designed and implemented Retrieval-Augmented Generation pipelines, enhancing factual grounding and reducing hallucinations.
- Developed and fine-tuned LLM-powered chatbots, improving contextual understanding and response consistency.
- Customized task-specific prompts and interaction flows to align chatbot behavior with domain and user requirements.

Data Science Intern at Data Majority

May 2022 – Aug 2022, Rahim Yar Khan (onsite)

- Performed exploratory data analysis(EDA) on structuredand unstructured datasets to uncover patterns and inform modeling decisions.
- Cleaned,preprocessed, and visualized large datasets using Pandas, NumPy, and Matplotlib to supportdata-driven strategies.
- Built and evaluated machine learning models for classification and regression tasks using Scikit-learn.

Projects

- Hand Sign Language Detection | Computer Vision
- Digital Number Image Detection | Machine Learning
- Emotion Detection from Text | NLP
- Restaurant Menu Chatbot | NLP / Chatbot
- Captcha Image Verification System | Machine Learning
- Phishing Detection System | Machine Learning
- Movie Rating Analysis | Big Data (Hadoop)
- A/B Testing on Product Data | Data Science
- Iris Flower Classification | Machine Learning
- Code Assistant Chatbot | LLM / Chatbot
- Panasonic Electronics Instrument Chatbot | LLM / RAG
- Medical Symptom Checker | Chatbot / NLP
- Text Summarization Tool | LLM / RAG
- Push-Up Counter | Computer Vision

Education

Bachelor of Science in Computer Science (Graduate)

Khawaja Fareed University of Engineering and Information Technology, RYK
20, February 2020 – 26 January 2024