

Muhammad Rizwan

AI/MLEngineer

Contact Details



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GitHub/Muhammad Rizwan



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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

Programin 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

Nov2023– Aug2024, 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 andevaluated 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