

MUHAMMAD RIZWAN ASLAM

+49 176 43864629 | rizwanaslam.work@gmail.com | [LinkedIn](#) | [GitHub](#) | [Portfolio Website](#)

ML engineer with focused experience in generative AI and diverse ML areas, passionate about leveraging AI to solve complex business challenges across industries.

EDUCATION

Brandenburg University of Technology (BTU Cottbus)

MSc Artificial Intelligence

Cottbus, Germany

2023 – 2025 (Expected)

COMSATS University Islamabad

BSc Computer Science

Lahore, Pakistan

2019 – 2023

SKILLS

Programming Languages: Python, SQL, Java

Libraries/Frameworks: Numpy, Pandas, Matplotlib, Scikit-learn, OpenCV, PyTorch, HuggingFace, LangChain, Streamlit, Spring Boot

Tools: Git, Docker, VS Code, Jupyter Notebook, Google Colab

Cloud Platforms: AWS (SageMaker, Bedrock)

Soft Skills: Time management, Problem-solving, Critical thinking, Collaboration

EXPERIENCE

Data Science Intern

May 2023 – July 2023

Machine Learning 1

Lahore, Pakistan

- Engineered an automated text extraction system processing 1000+ documents from diverse formats (PDF, Word, images), streamlining data integration for 30 targeted resume templates and reducing manual processing time
- Contributed to the development of robust datasets for computer vision models by performing image annotation for object detection using LabelImg

Software Developer Intern

May 2021 – July 2021

ABACUS Consulting

Lahore, Pakistan

- Implemented an algorithm leveraging Spring Boot to generate and read QR codes seamlessly, facilitating secure and efficient transactions for users
- Conducted thorough testing and debugging of the QR code algorithm to ensure reliability and accuracy

PROJECTS

RAG (Retrieval-Augmented Generation) | LangChain, OpenAI, Pinecone, Streamlit | [Link](#)

- Deployed a Streamlit web application that processes various document formats and URLs, automatically chunks content, and stores embeddings in Pinecone for efficient retrieval
- Implemented a question-answering system using LangChain's RetrievalQA with GPT-3.5, enabling users to query documents and receive AI-generated responses based on the content

Comic AI | OpenAI, Stable Diffusion, Streamlit | [Link](#)

- Created an AI-powered comic strip generator that transforms user-provided scenarios and character descriptions into complete 6-panel comic strips
- Integrated OpenAI's API for panel text generation and Stable Diffusion for image creation, allowing users to generate custom comics in various styles

Deep learning approach for mango variety identification using UAV imagery | PyTorch, Streamlit | [Link](#)

- Developed a custom deep learning model to identify and classify different mango varieties based on UAV imagery, utilizing YOLOv5, YOLOv7 and Detectron2 algorithms
- Created a Streamlit web application to showcase the model, trained on a dataset of over 12,000 images, enabling users to interact with and test the mango variety identification system

CERTIFICATIONS

- Machine Learning Specialization - DeepLearning.AI
- Deep Learning Specialization - DeepLearning.AI
- Python for Data Science and Machine Learning Bootcamp - Udemy