Muhammad Asim Hanif

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Professional Summary

Passionate AI/ML enthusiast with hands-on experience in Python, NLP, computer vision, and generative AI. Skilled in developing real-world applications using LangChain, Flask, and deep learning techniques like CNNs and Transformers. Built multiple AI-powered web apps including Fake News Detector, Spam Classifier, and Face Recognition System. Actively exploring LLMs, vector databases, and Hugging Face models. Seeking to contribute to innovative AI solutions in a collaborative team environment.

Technical Skills

- **Programming Languages:** Python, Java, SQL, JavaScript
- **AI/ML & DL:** NLP, LLMs, CNN, Transformers, RAG, Stable Diffusion, LangChain, Open Source LLMs
- **Libraries & Tools:** NumPy, Pandas, Scikit-learn, Hugging Face, PyTorch, TensorFlow, OpenAI API, Matplotlib, Seaborn
- **Backend/Frameworks:** Flask, FastAPI, RESTful APIs
- **Version Control & Deployment:** Git, GitHub, AWS (S3/EC2 - basic)

Education

Bachelor of Science in Software Engineering   **Oct/2023 – 2027**
National University of Technology (NUTECH), Islamabad CGPA: 2.89/4.0

- **Relevant Coursework:** Data Structures & Algorithms, Artificial Intelligence, Computer Networks, Software Construction & Development, Information Security, Database Systems, Object-Oriented Programming

Academic Projects

Fake News Detection Web App   **Nov/2024 - Dec/2024**

- Created a Flask-based web application for detecting fake news using NLP techniques.
- Features included: **Home Page**, **Input Article Page**, **Result Page with Confidence Score**.
- UI built with **HTML/CSS/JavaScript**, backend integrated with pre-trained ML model.

Email Spam Classifier   **May/2024 – Jul/2024**

- Built a binary classification model using Natural Language Processing (NLP) and scikit-learn to classify emails as "spam" or "not spam".
- Used TF-IDF vectorization and algorithms like Naive Bayes and Logistic Regression for training.
- Achieved high accuracy and precision on the test set with confusion matrix and ROC curve for evaluation.

LLM-Powered YouTube Assistant   **Jun/2025 – Present**

- Currently developing an AI assistant using LangChain, FAISS, and GPT-4 to summarize YouTube videos and answer user queries contextually.
- Implements RAG pipeline with a Streamlit interface for interactive and dynamic user experience.

Certifications

- **Machine Learning with Python** — IBM (Coursera)
- **LangChain for LLM Application Development —** DeepLearning.AI
- **Linear Algebra for Machine Learning and Data Science** — DeepLearning.AI (Coursera)
- **Hugging Face Transformers —** HuggingFace.co
- **Generative AI with Diffusion Models —** DeepLearning.AI

Additional Information

- Representative — National University of Technology (NUTECH) Student Council (2024–Present)
- Winner of University Quiz Competition (2024)
- Participated in multiple coding hackathons and technical workshops focused on web development and machine learning