Rana Adeel Tahir

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EDUCATION

FAST NUCES
Bachelor of Science in Computer Science — *Aug. 2021 – May 2025*

Beaconhouse College Programmes — Lahore, Gulberg
A'Levels — *Aug. 2019 – May 2021*

Beaconhouse School System — Lahore, AIT
O'Levels — *Aug. 2016 – May 2019*

TECHNICAL SKILLS

Languages: Dart, Python, C/C++, SQL (Oracle DBMS), JavaScript, HTML/CSS, R
Frameworks: React, Node.js, Next.js, Express.js, Shadcn-UI, MongoDB, Flutter, Firebase, Langchain, LlamaIndex
Developer Tools: Git, VS Code, Visual Studio, PyCharm
Libraries: pandas, NumPy, Matplotlib, Tensorflow, scikit-learn, Keras, Unsloth

EXPERIENCE

AI Software Engineer Intern — July 2024 – Sep 2024
PureLogics — *Lahore, Pakistan*
- Enhanced sentiment classification models using Microsoft Azure, developed a text augmenter, and mapped hierarchical intents.
- Automated academic email responses with a RAG-powered Gmail responder parsing research papers.
- Designed a multimodal RAG pipeline for speech-to-text and text-to-speech question answering.
- Built a synthetic data pipeline to generate privacy-preserving data and fine-tuned LLMs for tax ordinance Q&A.

Freelance Developer — June 2023 – Dec 2023
Fiverr — *Remote*
- Developed a social networking application using Flutter with Firebase as the backend.

Management Head — Jan 2023
Job Fair 2023 — *FAST NUCES, Chiniot-Faisalabad Campus*
- Managed several national and international companies, overseeing event operations and coordination.

PROJECTS

Intent Classification System | *Python, Azure, Parrot Library* — June 2023
- Implemented a text augmenter to generate diverse datasets for training sentiment classification models.
- Enhanced intent classification by mapping and labeling hierarchical master-slave intents.
- Collaborated with team members to refine Microsoft Azure-based models for improved intent detection accuracy.

Gmail Responder | *LangChain, OpenAI, LlamaIndex, Qdrant* — June 2023
- Developed an AI system to automate academic email responses using Retrieval-Augmented Generation (RAG).
- Integrated LlamaIndex for parsing research papers and OpenAI Embeddings with Qdrant for efficient retrieval.
- Leveraged LangChain's Gmail Toolkit for email management and response generation.

Speech-to-Text and Text-to-Speech RAG Pipeline | *OpenAI Whisper, LlamaIndex, Gemini 1.5 Pro* — Aug 2023
- Built a multimodal RAG pipeline capable of transcribing speech and answering questions about academic papers.
- Utilised OpenAI Whisper for speech-to-text and LlamaIndex for retrieving relevant information.
- Incorporated Gemini 1.5 Pro model for accurate response generation and enhanced user interaction.

Synthetic Data Pipeline and LLM Fine-Tuning | *Llama 3.1, Unsloth, LangChain* — Sep 2023
- Created a synthetic data pipeline for privacy-preserving training of LLMs.
- Generated a Tax Ordinance 2024 question-answer dataset using RAG and LlamaParse API.
- Fine-tuned Llama 3.1 8B with LoRA for efficient adaptation and trained on order-appeal scenarios.
- Published datasets and adapters on HuggingFace for community use.