

Layyana Junaid

Email: layyana.junaid@gmail.com — Phone: 0320-8380681 — LinkedIn: linkedin.com/in/layyana-junaid

Objective

Motivated about **agentic development** while incorporating **LangChain** and **LangGraph**. Eager to apply my agentic development skills in order to design intelligent system which provide real world solution. Enjoy working on data and creating visual representation of that data by utilizing **Matplotlib** and **Seaborn**. Committed to continuous learning and curating **AI-driven solutions** which will make an impact.

Education

Bachelor of Science in Artificial Intelligence — FAST NUCES, Karachi Campus	2023–2027 (Expected)
A Levels (Pre-Engineering) — Beaconhouse College Program	2021–2023
O Levels (Pre-Engineering) — Beaconhouse School System	2008–2021

Experience

AI Intern – Jaffer Business Systems	Jul–Aug 2025
• Gained hands-on experience on advanced AI frameworks , such as LangChain and LangGraph , to create intelligent, practical systems based on the ReAct and RAG methodologies.	
• Developed a Debt Management Agent that uses RAG and LangGraph to retrieve financial data from Pinecone , with data embedded and upserted using Azure OpenAI embeddings , and applied Avalanche/Snowball techniques to increase retrieval accuracy by 20%.	
• Designed a Smart Conversational Analyser using LangChain and ReAct Workflows , incorporating Groq API and DeepGram STT for LLM-driven quiz, flashcard, and summarisation . The system accepts three types of input — real-time audio, MP3/MP4 files, and YouTube links — and processes them seamlessly for intelligent content generation.	
• Improved reasoning chains in RAG and ReAct architectures , improving multi-agent cooperation and contextual response quality.	

Projects

AI Music Genre Classifier

- Developed an **AI-powered application** that uses a **FastAPI** backend to extract audio from **YouTube**, transcribes using **DeepGram STT**, and uses a **ReAct Agent** powered by **Groq LLM** to forecast genres with **85% classification accuracy**.

Summara – Text Summarization Web App

- Created a **Flask web application** with **NLP** capabilities for summarizing **.txt**, **.pdf**, and **.docx** files in three different modes: **Insightful**, **Bullet Points**, and **Minimal**.
- Reduced significant reading time by implementing **text preparation**, **keyword extraction**, and **multi-style summarisation** utilising **PyMuPDF**, **python-docx**, and bespoke **tokenisation algorithms**.

Multithreaded File Downloader with Verification

- Using **C**, **GTK**, and **curl** with checksum checking, a **multithreaded file downloader** was implemented, resulting in **3× quicker performance** than single-threaded techniques.

Dynamic Pac-Man for Two Players with AI Ghosts

- Using **A***, **BFS**, **Min-Max**, and **Genetic Algorithms** for adaptive gameplay, a **two-player Pac-Man game** with **AI-driven ghosts** was developed in **Python (Pygame)**.

Skills

Programming & Data: Python, C/C++, SQL, MongoDB, NumPy, Pandas, HTML, CSS

AI/ML & LLMs: TensorFlow, PyTorch, scikit-learn, NLTK, LangChain, LangGraph, Multi-Agent Systems, RAG, ReAct, OpenAI APIs, Azure Embeddings, Groq, DeepGram

Data Analytics: Data Cleaning, Feature Engineering, EDA, Model Training & Evaluation, NLP Pipelines, Model Deployment

Tools & Platforms: Pinecone, FastAPI, Flask, Streamlit, Jupyter, Git/GitHub, Linux, Matplotlib, Seaborn

Certificates

Google Advanced Data Analytics (Coursera) — Google Prompting Essentials (Coursera)