Waleed Daud

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https://www.linkedin.com/in/waleed-daud https://github.com/waleeddaud Portfolio

Objective

Software Engineering student and Back-end Developer skilled in building RESTful APIs with FastAPI, Flask, and Express.js. Experienced in LLM integration via LangChain, Gemini, and OpenAI. Developing ETL pipelines using Dagster. Passion for problem solving, programming fundamentals, DSA and algorithmic thinking. My research interests include developing intelligent software solutions, with a focus on natural language processing (NLP), smart Agentic AI systems, and Applied AI for solving real-world problems. I hope to contribute to research and make a meaningful impact in this domain.

Education

Bachelors in Software Engineering June 2023 – Present
Punjab University College of Information Technology (PUCIT), Lahore, Pakistan *CGPA: 3.84/4*

FSC Pre-Engineering 2019 – 2021
Government College University Lahore (GCUL), Lahore, Pakistan *Final Grade: 1098/1100*

Experience

Aviation Cadet June 2022 – June 2023
Pakistan Air Force Academy Asghar Khan (PAFAA) *Risalpur, Pakistan*

- Was commissioned as Aviation Cadet for Aerospace Engineering
- Participated in training focused on discipline, teamwork, and leadership. Partake in physical and mental training exercises, and engage in critical thinking activities.
- Left training due to medical grounds.

Part-time Backend Developer Nov 2024 – July 2025
CodeBryx *Lahore, Pakistan*

- I gained hands-on experience working with LangChain, AI chatbots using OpenAI's Assistant API, and Gemini API. Implemented RAG using Pinecone DB.
- I also worked on backend development using FastAPI/ Flask with SQLAlchemy, Node.js with Sequelize ORM, PostgreSQL. I was also involved in the implementation of JWT authentication for secure API.
- Worked on ETL Data Pipelines using Dagster. Fetched and ingested raw data from APIs, performed data cleaning, normalization, and transformation. Upserted data to Supabase. Configured cron-based schedules for automatic trigger of pipelines.

Projects

AI Chatbot | *LangGraph, LangChain, Streamlit*

- Streamlit Frontend: Built an interactive UI for real-time chat interaction
- LangGraph Logic: Implemented stateful conversation flows using LangGraph
- LLM Integration: Integrated with OpenAI and Gemini APIs for context-aware responses
- Thread/Session Management: Designed multi-threaded conversation handling for persistent context using checkpointers from LangGraph
- GitHub Link
- Live Demo

DagStorm | *Dagster*

- Data Ingestion: Fetch weather data from the OpenWeatherMap API
- Data Transformation: Clean and structure raw JSON data into a normalized format
- Database Integration: Store processed data in Supabase PostgreSQL using SQLAlchemy

- Pipeline Orchestration: Automated ETL pipeline scheduling and monitoring with Dagster
- GitHub Link

BlogApp | *FastAPI*

- Blog Management: Create, update, delete, and view blogs
- PostgreSQL Integration: Store and manage data
- Secure Authentication with JWT tokens
- GitHub Link

Event Management System | *nodejs, Expressjs*

- Description: Developed a backend for an event management system with secure authentication, role-based access control, and CRUD operations using Sequelize ORM
- GitHub Link

Technical Skills

Programming Languages: Python, C++, JavaScript
Web & Frameworks: Flask, FastAPI, Expressjs, PostgreSQL
Generative AI: OpenAI , Gemini, LangChain, LLM Integration
Data Science & Data Engineering: Pandas, NumPy, Matplotlib, Dagster
Other Tools: Git/GitHub, VS Code

Achievements

- Solved **600+ problems on LeetCode**, building strong foundations in algorithms and data structures (arrays, strings, stacks, queues, linked lists, trees, heaps, graphs, hash maps, dynamic programming).
- Maintained a **400+ day streak** of solving problems consistently.
- **LeetCode Profile:** https://leetcode.com/u/waleeddaud/