

Muhammad Talha Masood

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SUMMARY

Passionate Software Engineer and AI/ML engineer with a strong background in python django, deep learning, large language models. Excellent problem-solving, research, and collaboration abilities. Seeking a challenging role to develop cutting-edge Web and AI solutions.

EXPERIENCE

Software Engineer

April 2022 – Present

Linked Matrix

Lahore, onsite

- Led a team of 3 developers to deliver a full-stack project from user stories to production deployment.
- Converted complex Excel workflows into a user-friendly web application for improved data management.
- Refactored and optimized legacy systems by enhancing database queries and UI responsiveness.
- Set up CI/CD pipelines to automate testing and deployment processes.
- Implemented coding best practices and structured documentation for long-term maintainability.
- Built data pipelines to extract data from data lakes and push it to AWS for advanced analytics.
- Integrated third-party services including Stripe, Notion, and Typeform into the system.
- Deployed Sentry for real-time error tracking and monitoring.
- Created reusable UI components directly from design mockups using modern frontend frameworks.

NLP Engineer Intern

July 2021 – September 2021

Kicks Department

Uet, Lahore

- Worked on Topic Modeling using NLP techniques like LDA and LSA for Urdu and English news datasets.
- Created a comprehensive topic modeling notebook with preprocessing steps tailored for Urdu language.
- Explored various NLP techniques including stemming and text normalization to enhance model performance.

TECHNICAL SKILLS

Programming Languages: Python(Django, Flask, FastAPI), Anvil, Javascript(ReactJs, NextJs)

Databases: SQL, Postgres, MongoDB, ElasticSearch

ML tools: TensorFlow, PyTorch, Keras, Transformers, LLMs

Tools: Git, Docker, Docker Compose, Kubernetes, CI/CD Pipelines

Cloud Technologies: AWS, GCP

PROJECTS

Serve Well

Developed an end-to-end system to automate customer feedback collection and analytics

- Used Mistral-7B to generate dynamic questions based on the user's order history.
- Integrated WhatsApp API to automate the feedback collection process.
- Employed Whisper AI to transcribe audio messages into clean, structured text for analysis.
- Leveraged Mistral-7B to analyze and extract meaningful insights from user feedback.
- Built agentic workflows to generate visual and descriptive analytics on collected data.
- Designed a conversational interface allowing users to query and explore analytics using natural language.

AI Analytic Dashboard for Customer Database

Natural Language Processing

- Built a data pipeline using Apache Airflow to extract and manage admin user data.
- Developed an interactive dashboard using Next.js for real-time data visualization.
- Created a conversational API and integrated an LLM SQL agent for natural language data queries.

EDUCATION

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| Lums University <i>M.S. in Computer Science, Artificial Intelligence</i> | Lahore Aug 2023 – May 2025 |
| University of Engineering and Technology, Lahore <i>B.S. in Electrical Engineering and Computer Science</i> | Lahore Aug 2018 – May 2022 |