

Raffay Ahmed

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EDUCATION

FAST NUCES, Islamabad, Pakistan
Bachelor of Science in Data Science

2021 – 2025
Islamabad,PK

WORK EXPERIENCE

GreenStar Social Marketing, Data Analyst Intern

Feb 2025 – Mar 2025, Islamabad, Pakistan

- Analyzed **USAID TB program** data using Python (**pandas**, **NumPy**, **SQL**) for cleaning, validation, and preparation.
- Developed interactive graphs and visualizations with **matplotlib**, **seaborn**, and **plotly**, enabling real-time tracking of program indicators and evidence-based decision-making.
- Automated recurring workflows by writing Python scripts, reducing manual reporting time and improving **efficiency**.

Islamabad Club, Digital Transformation Intern

Jun 2024 – Aug 2024, Islamabad, Pakistan

- Delivered **data-driven insights** to support digital transformation and process improvements.
- Proposed a **mobile app** to automate workflows and showcased **Figma prototypes** to stakeholders, enabling online processes and enhancing **member experience** and enabling online services.

PROJECTS

Doctor-AI (FYP) - AI Virtual Health Assistant

Tech Stack: Python, Flask, PyTorch, Pandas, SiBERT, BlenderBot, Next.js, Firebase, MongoDB

- Developed a conversational AI chatbot using a fine-tuned **BlenderBot** model.
- Integrated **SiBERT-based emotion detection** and sentiment analysis to classify user moods.
- Built a **recommendation engine** for coping strategies, motivational quotes, and resources.
- Designed a full-stack platform with **Next.js frontend**, **Flask backend**, **Firebase auth**, and **MongoDB**.
- Deployed the application on doctor-ai-final.vercel.app.

Comprehensive Forecasting System – Multi-Sector Forecasting

Tech Stack: Python, Jupyter, Pandas, NumPy, Matplotlib, HTML/CSS/JS

- Multi-sector forecasting system for **energy consumption**, **CO2**, and **stock indices**.
- Implemented models: **ARIMA**, **SARIMA**, **ETS**, **Prophet**, **SVR**, **ANN**, **LSTM**, **Hybrid ARIMA-ANN**.
- Processed data and visualized forecasts with **Python**, **Pandas**, **NumPy**, and **Matplotlib**.
- Built a simple web UI (**HTML/CSS/JS**) for interactive forecast exploration.
- Project on GitHub: [forecasting-system](https://github.com/raffay464/forecasting-system).

PhysiChat – Physics Chatbot

Tech Stack: Python, HuggingFace Transformers, PyTorch, Tkinter/Flask, Sentence Transformers, Pandas

- Fine-tuned a **BERT**-based NLP model and implemented semantic search for accurate physics Q&A responses.
- Developed an interactive GUI using **Tkinter/Flask** with real-time chat, visualization, and user-friendly interface.

MLOps Pipeline for Innovate Analytics Inc.

Tech Stack: Airflow DAG, MLflow, Git, Docker, Jenkins

- Built and scheduled an **Airflow DAG** for weather data preprocessing and model training.
- Tracked experiments and managed model versions using **MLflow**.
- Collaborated with team using **Git branching strategy** for development, testing, and production.
- Deployed scalable containers with **Docker + Minikube**.

TECHNICAL SKILLS & CERTIFICATIONS

Languages	Python,C/C++,JavaScript(Next.js,Node.js),Java,MySQL,Oracle,HTML/CSS
Frameworks	Flask, Next.js, TensorFlow, PyTorch, Keras, HuggingFace Transformers, Scikit-learn, Pandas,Numpy, Matplotlib, Firebase, Docker, GitHub Airflow, MLflow, AWS, LaTeX
Certifications	2024 – AWS Academy Graduate – Cloud Data Pipeline Builder (AWS) 2024 – AWS Academy Graduate – Cloud Web Application Builder (AWS)