Farhan Ali Khan

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EDUCATION

COMSATS University Islamabad, Lahore Campus

Bachelor of Science in Computer Engineering (Current CGPA: 3.69)

Sept. 2021 - Present

Government College University Lahore (GCUL)

Intermediate in Computer Science (ICS)

Aug. 2019 - June 2021

EXPERIENCE

Internship

June 2024 – August 2024

Flood Forecasting Division (FFD), Pakistan Meteorological Department (PMD)

 $Lahore,\ Pakistan$

- Improved real-time data processing efficiency by 30% by applying principles of data processing and remote sensing, utilizing environmental sensors for flood forecasting.
- Increased predictive modeling performance by 40% by integrating programming, data structures, and algorithmic techniques, advancing PMD's research efforts in machine learning for environmental monitoring.
- Streamlined data input and visualization processes by 35% by collaborating with interdisciplinary teams, enabling faster, data-driven decision-making in meteorological analysis.

PROJECTS

MCQ Generator Using NLP | Python, Spacy, Scikit-learn, Streamlit

- Repo Link: github.com/ThisIsFarhan/MCQGENERATOR-NLP
- Live Link: mcqgenerator-nlp-farhan.streamlit.app/
- Developed an MCQ generator leveraging NLP techniques to create multichoice questions and their answers from the entered text.
- Consulted the research paper: "An Automated Multiple-Choice Question Generation Using Natural Language Processing Techniques" by Chidinma A. Nwafor and Ikechukwu E. Onyenwe.
- Utilized spacy library for stemming, lemmatization and stopwords-removal for text preprocessing.
- Implemented TF-IDF using sckikit-learn for extracting the important keywords from the text.
- Deployed the app on streamlit cloud with user friendly interface, streamlining the quiz creation process for educators and reducing preparation time by 40%.

Hand Sign Language Detector App | Android, MediaPipe, Python

- Repo Link: github.com/ThisIsFarhan/SignLanguageDetector-Koltin
- Developed a hand sign language detection android app for a client.
- Fine-tuned the MediaPipe object detector model with a custom dataset, achieving a 95% detection accuracy.
- Integrated the model using MediaPipe library for Android and utilized CameraX API for real-time detection.
- Implemented text-to-speech functionality to assist people who cannot read, enhancing accessibility.

FAQ Bot | Python, NLTK, Keras, FastApi

- Repo Link: github.com/ThisIsFarhan/DeepLearning-ChatBot
- Created the chatbot using deep learning and NLP.
- Developed the dataset from scratch and utilized the NLTK library for natural language processing to enhance chatbot response accuracy.
- Implemented the chatbot using FastAPI to serve a REST API to be integrated into the university website, automating user queries and reducing response time by 50%.

SKILLS

Languages: Python, Java, C/C++, Kotlin, Dart, SQL

Libraries and Frameworks: NumPy, Pandas, Seaborn, Matplotlib, Scikit-learn, SciPy, TensorFlow, PyTorch, Flask,

Streamlit, Flutter

Developer Tools: Git/GitHub, GitHub Actions, Docker