HAMZA ASAD

Islamabad, Pakistan
Hamzaasad26@gmail.com — LinkedIn: linkedin.com/in/hamza-asad-6bb307253/ — +92 333 4365190

EDUCATION

National University of Computer and Emerging Sciences Expected Graduation: July 2026
B.S. in Data Science
CGPA: 3.61/4.00
Courses: Data Structures, Discrete Structures, Fundamentals of Big Data Analytics, Fundamentals of Software Engineering, Linear Algebra, Object-Oriented Programming

SKILLS

Programming Languages	Python, C++, R
Frameworks	Scikit, NLTK, Pandas, NumPy, Flask
Tools	MySQL, MongoDB, Apache Spark, Hadoop, Power BI

EXPERIENCE

AI/ML Engineer June 2024 - August 2024
AIM Lab, Islamabad
Focused on emotion detection via video and speech analysis, contributing to ongoing research in AI-driven emotional recognition.

Teaching Assistant January 2024 - Present
Fast NUCES, Islamabad Campus
Supported students in *Introduction to Data Science* by assisting with labs, assignments, and projects. Assisted with student evaluation in *Expository Writing*, providing feedback and helping manage course materials.

Lab Demonstrator January 2024 - Present
Fast NUCES, Islamabad Campus
Teaching Object-Oriented Programming (OOP) in C++.

PROJECTS

InterviewerPro
Streamlined the hiring process by providing an automated screening layer. Trained deep learning models to detect emotions from live facial and audio input streams. Utilized LlamaParse to parse through candidates' CVs and generate personalized interview questions. Evaluated candidates' emotions throughout the interview process to map them to relevant soft skills.

Spotify Recommendation System
Developed a music recommendation system using Python. The system extracts audio features such as MFCCs and log filter bank energies from music tracks using Librosa and Python Speech Features libraries. These features are stored in MongoDB for efficient data management. Implemented a KMeans Clustering model with PySpark's MLib library to group similar tracks based on extracted features, enhancing recommendation accuracy.

Developing a Search Engine Utilizing MapReduce
Created a basic search engine using the MapReduce paradigm for efficient document indexing and query processing. Utilized Hadoop, Java, and Python to handle large-scale data processing tasks.

PubMed Article Summarizer Web Application
Developed a web application using Flask that summarizes PubMed articles. This project utilizes LSA (Latent Semantic Analysis) from the sumy library for extractive summarization. Users can upload PubMed articles in text format, and the application generates a summarized version using LSA.