M Hamza Zafar

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PERSONAL-SUMMARY
Passionate AI enthusiast with a robust background in WEB DEVELOPMENT, proficient in Computer Vision, Natural Language Processing (NLP), and Machine Learning. Excited about delving into cutting-edge domains like Generative AI and beyond. Dedicated to harnessing AI's potential to drive innovation and shape the future, constantly adapting to stay at the forefront of the rapidly evolving field of AI.

EDUCATION

FAST NUCES
BS in Artificial Intelligence
April 2024 | Karachi, PK
CGPA: 3.02 / 4.0

SKILLS

PROGRAMMING
• Python • Javascript • C++
• C • PHP

FRAMEWORKS
• Django • Express • Node.js

LIBRARIES
• TensorFlow • Keras • OpenCV
• Bootstrap • sklearn • Matplotlib
• NumPy• Pandas

PRODUCTIVITY:
• Git • Prompt Engineering

TECHNOLOGIES:
• Neural Networks • Gen AI
• Machine Learning • OOP
• MySQL

MARKUP AND STYLING:
• LaTeX • HTML
• CSS

CERTIFICATES:
• Introduction to Deep Learning in Python(Datacamp) • Introduction to Tensorflow in Python(Datacamp)
•Feature Engineering for NLP in Python(Datacamp)

FAMILIAR:
• Flutter • Kotlin

PERSONAL PROJECTS

EMOTISEMENT | Feedback on Advertisement

- Used TensorFlow/Keras for facial expression analysis, integrating convolutional and pooling layers in four deep neural network architectures. Implemented a weighted ensemble method to boost emotion prediction. Generate a report based on emotions indicating where the ad can be improved. Employed django for backend

RECOMMENDATION SYSTEM | Recommendation for movie

- Implemented a recommendation system that suggests personalized content to users, using matrix factorization for better recommendation.

ROBOTIC HAND | Robotic fingers mimicking Human fingers

- OpenCV, implemented in Python, for finger detection and to interpret and respond to gestures accurately, including detecting hands and then finger movements such as opening and closing.
- Integration of Arduino and OpenCV enabled real-time interaction between the physical world and digital software, enriching the user experience with intuitive finger-based controls.

NEWS CLASSSIFICATION | Urdu News Classfication

- We cleaned, tokenized, and removed stop words to refine the dataset.
- Using embeddings, bidirectional LSTM, and dropout, we accurately classified news into four classes.

CHATBOT | Chatbot which can be customized

- The chatbot was trained(neural networks) to learn from prompts.
- Natural Language Processing (NLP) techniques, lemmatization, tokenization, and bag-of-words, were used to enhance the chatbot's understanding of user inputs.

WEATHER PREDICTION | utilized previous weather data to predict future weather

- Leveraging LinkedList(efficient, fast storage) for huge data
- Using Linear Regression, we extrapolated insights from past weather data to forecast future weather conditions.

FYP MANAGEMENT SYSTEM | from FYP registration to scoring.

- Employed ReactJS for frontend development to create a dynamic user interface.
- Utilized Express.js to build APIs and MySQL as the database. Implemented authentication with bcrypt for password hashing and JWT for token-based login validation and session management.