KUSH PANDYA

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SUMMARY

As a passionate Bachelor's student I thrive on leveraging backend development skills to craft innovative solutions using machine learning techniques for real-time challenges. My commitment to bridging academic knowledge with practical applications drives me to stay informed about emerging technologies in the field. I am a proactive learner, eager to contribute my expertise and bring fresh perspectives to any team or project.

EDUCATION

Parul University Aug. 2021 - Current
B.Tech CSE(Specialization in AI) 2025
CGPA :7.52

Delhi Public School Aug. 2019 - Mar. 2021
HSC SCIENCE 2021
PERCENTAGE:81.2%

SKILLS

LANGUAGES:: C++, Python
MACHINE LEARNING:: NumPy, Pandas, TensorFlow, LLM, LangChain, Keras
DATABASES:: MySQL, MongoDB
FRONTEND:: HTML, CSS, JavaScript
BACKEND:: Flask
VERSION CONTROL:: Git, GitHub

PROJECTS

TextBook-GPT: AI mentor for Students Nov. 2023 - Current

- Developed an AI mentor for Indian school students using **RAG** technique for enhanced learning.
- Implemented **computer vision** to extract text, images, and tables from textbooks, enriching the mentor's knowledge.
- Integrated multi-modal data into a **vector database** for efficient retrieval based on student queries, Created a user-friendly chat interface with **Streamlit** for answer generation and quiz creation, powered by locally hosted open-source LLMs via **Ollama** for precise assignment assistance.

Hangman Game Project Jan. 2024 - Feb. 2024

- Developed a Hangman game using **HTML, CSS,** and **JavaScript**.
- Integrated random word selection feature for each game session.
- Designed and implemented a scoring system to track player progress.
- Ensured cross-browser compatibility and responsiveness for seamless gaming experience.

MoodTune: Music Recommendation Based on Facial Expressions Sept. 2023 - Oct. 2023

- Built an Emotion-Music-Recommendation Model with **Flask**, leveraging facial emotion recognition.
- Trained a **convolutional neural network (CNN)** using the FER2013 dataset for accurate emotion detection from live video feed.
- Integrated live video processing from webcam input to provide personalised music suggestions based on predicted user mood.
- Enhanced understanding of deep learning, web development, and API integration through practical application of **Keras, TensorFlow, Flask,** and the **Spotify Web API.**