ABSTRACT

PROJECT OVERVIEW:

The Mood Detection and Spotify Music Recommendation System is an innovative application designed to enhance the user experience by combining facial emotion recognition with personalized music recommendations. This project utilizes state-of-the-art technologies in computer vision and machine learning, leveraging OpenCV for real-time webcam access and Deep Face for analyzing facial expressions to determine the user's emotional state.

KEY FEATURES:

- Python: The primary programming language for development.
- OpenCV: A library for computer vision tasks, used for capturing webcam video.
- DeepFace: A deep learning library for facial recognition and emotion detection.
- Spotipy: A lightweight Python library for accessing the Spotify Web API, used for retrieving music recommendations.
- Streamlit: A framework for building web applications quickly and easily, used for the user interface. TECHNOLOGY STACK:

USE CASES:

- Upon capturing the user's facial expression, the system identifies the dominant mood such as happiness, sadness, anger, or neutrality and subsequently utilizes the Spotify Web API to fetch curated music recommendations that align with the detected emotion.
- The integration with Spotify enables the application to provide users with a tailored listening experience, promoting emotional well-being through music.

CONCLUSION:

Overall, this project exemplifies the convergence of technology, psychology, and art, making it a unique addition to the landscape of mood-based applications.

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