Emotion Detection System - User Guide

Overview

This project is an Emotion Detection System that allows users to detect emotions from Photo, Video, Audio, or Webcam using a simple graphical interface built with Tkinter and Python.
It uses DeepFace for face emotion detection and a pre-trained audio model for audio-based emotion detection.

1. Requirements

Make sure Python 3.10 is installed.

Install the required packages (DeepFace, Librosa already installed):

```
py -3.10 -m pip install opencv-python joblib Pillow
```

2. Running the Project

To run the program, use the following command:

```
py -3.10 emotion_gui.py
```

This opens a graphical interface with buttons to choose between different input types (Photo, Video, Audio, Webcam).

3. Using Each Option

- Detect from Photo: Upload an image. The system detects and displays the dominant emotion.
- Detect from Video: Upload a video file. It analyzes the first 100 frames for dominant emotions.
- Detect from Audio: Upload an audio file. The system uses a pre-trained model to detect emotion.
- Live Detection (Webcam): Opens your webcam and shows real-time emotion analysis. Press 'q' to quit.

4. Uploading to GitHub

1. Create a new GitHub repository.

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2. Clone the repository or create a local folder.

3. Place your files:

   - emotion_gui.py

   - audio_emotion_model.pkl (optional)

   - README.md (with short project description)

4. Run the following commands:

```
git init
git add .
git commit -m "Initial commit"
git branch -M main
git remote add origin https://github.com/your-username/your-repo-name.git
git push -u origin main
```

5. Share the GitHub link with others!

5. Notes

- Make sure your audio emotion model is trained and saved as 'audio_emotion_model.pkl'.

- If webcam does not work, ensure it is not being used by another application.

- Use standard image, audio, and video formats (.jpg, .mp4, .wav).