

FaceEmotionDetection

Python version: 3.11.5

Libraries to be Installed:

1. Tensorflow
2. Keras
3. Numpy
4. cv2
5. matplotlib
6. kagglehub

Training the model:

1. ResEmoteNet: Upload the resnet.py file to runtime and run the below script:
Please check the google colab project for training:
<https://colab.research.google.com/drive/1PvPrwPL8w82mkmihlireZlO20lCFpn8S?usp=sharing>
2. CNN : Please check the google colab project for training
steps: https://colab.research.google.com/drive/1Bkd_wH_GKzl6hkiD9g-kaFKuoZ_EfA?usp=sharing

Real time Execution steps:

1. Download the trained models(.keras) files from given links:
ResEmoteNet:https://drive.google.com/file/d/1CDnEuKahgFqQLhi5hwE7P7qcJUO56ryM/view?usp=drive_link
CNN:
https://drive.google.com/file/d/1BOyIL6VKpqfycADeLCcKXuN5dCin7eY/view?usp=drive_link
2. Replace the name of the model in real_time_test.py:

```
print("loading model..")  
name= "download_trained_model.keras" //Give the name of the downloaded trained model  
model = load_model(name)  
print("Loaded model from disk")
```
3. Execute the script using:

```
$ python3 real_time_test.py  
loading model..  
Loaded model from disk  
Enter mode (live/video): video  
Enter input video file path: input_test3.mp4
```

Output files are included in the zip