

```
import cv2 #computer vision
```

Double-click (or enter) to edit

Start coding or [generate](#) with AI.

```
img=cv2.imread("/content/baby_crying.jpg")
```

```
import matplotlib.pyplot as plt
```

```
plt.imshow(img) #bgr
```

↗ <matplotlib.image.AxesImage at 0x78715ebf4400>



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```
plt.imshow(cv2.cvtColor(img,cv2.COLOR_BGR2RGB)) #RGB
```

↗ <matplotlib.image.AxesImage at 0x78715e912ec0>



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```
!pip install deepface
```

↗ Collecting deepface

```
Downloading deepface-0.0.93-py3-none-any.whl.metadata (30 kB)
Requirement already satisfied: requests>=2.27.1 in /usr/local/lib/python3.10/dist-packages (from deepface) (2.32.3)
Requirement already satisfied: numpy>=1.14.0 in /usr/local/lib/python3.10/dist-packages (from deepface) (1.26.4)
Requirement already satisfied: pandas>=0.23.4 in /usr/local/lib/python3.10/dist-packages (from deepface) (2.1.4)
Requirement already satisfied: gdown>=3.10.1 in /usr/local/lib/python3.10/dist-packages (from deepface) (5.1.0)
Requirement already satisfied: tqdm>=4.30.0 in /usr/local/lib/python3.10/dist-packages (from deepface) (4.66.5)
```

```
Requirement already satisfied: Pillow>=5.2.0 in /usr/local/lib/python3.10/dist-packages (from deepface) (9.4.0)
Requirement already satisfied: opencv-python>=4.5.5.64 in /usr/local/lib/python3.10/dist-packages (from deepface) (4.10.0.84)
Requirement already satisfied: tensorflow>=1.9.0 in /usr/local/lib/python3.10/dist-packages (from deepface) (2.17.0)
Requirement already satisfied: keras>=2.2.0 in /usr/local/lib/python3.10/dist-packages (from deepface) (3.4.1)
Requirement already satisfied: Flask>=1.1.2 in /usr/local/lib/python3.10/dist-packages (from deepface) (2.2.5)
Collecting flask-cors>=4.0.1 (from deepface)
  Downloading Flask-Cors-5.0.0-py2.py3-none-any.whl.metadata (5.5 kB)
Collecting mtcnn>=0.1.0 (from deepface)
  Downloading mtcnn-0.1.1-py3-none-any.whl.metadata (5.8 kB)
Collecting retina-face>=0.0.1 (from deepface)
  Downloading retina_face-0.0.17-py3-none-any.whl.metadata (10 kB)
Collecting fire>=0.4.0 (from deepface)
  Downloading fire-0.6.0.tar.gz (88 kB)
88.4/88.4 kB 1.8 MB/s eta 0:00:00
Preparing metadata (setup.py) ... done
Collecting gunicorn>=20.1.0 (from deepface)
  Downloading gunicorn-23.0.0-py3-none-any.whl.metadata (4.4 kB)
Requirement already satisfied: six in /usr/local/lib/python3.10/dist-packages (from fire>=0.4.0->deepface) (1.16.0)
Requirement already satisfied: termcolor in /usr/local/lib/python3.10/dist-packages (from fire>=0.4.0->deepface) (2.4.0)
Requirement already satisfied: Werkzeug>=2.2.2 in /usr/local/lib/python3.10/dist-packages (from Flask>=1.1.2->deepface) (3.0.4)
Requirement already satisfied: Jinja2>=3.0 in /usr/local/lib/python3.10/dist-packages (from Flask>=1.1.2->deepface) (3.1.4)
Requirement already satisfied: itsdangerous>=2.0 in /usr/local/lib/python3.10/dist-packages (from Flask>=1.1.2->deepface) (2.2.0)
Requirement already satisfied: click>=8.0 in /usr/local/lib/python3.10/dist-packages (from Flask>=1.1.2->deepface) (8.1.7)
Requirement already satisfied: BeautifulSoup4 in /usr/local/lib/python3.10/dist-packages (from gdown>=3.10.1->deepface) (4.12.3)
Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-packages (from gdown>=3.10.1->deepface) (3.15.4)
Requirement already satisfied: packaging in /usr/local/lib/python3.10/dist-packages (from gunicorn>=20.1.0->deepface) (24.1)
Requirement already satisfied: absl-py in /usr/local/lib/python3.10/dist-packages (from keras>=2.2.0->deepface) (1.4.0)
Requirement already satisfied: rich in /usr/local/lib/python3.10/dist-packages (from keras>=2.2.0->deepface) (13.8.0)
Requirement already satisfied: namex in /usr/local/lib/python3.10/dist-packages (from keras>=2.2.0->deepface) (0.0.8)
Requirement already satisfied: h5py in /usr/local/lib/python3.10/dist-packages (from keras>=2.2.0->deepface) (3.11.0)
Requirement already satisfied: optree in /usr/local/lib/python3.10/dist-packages (from keras>=2.2.0->deepface) (0.12.1)
Requirement already satisfied: ml-dtypes in /usr/local/lib/python3.10/dist-packages (from keras>=2.2.0->deepface) (0.4.0)
Requirement already satisfied: python-dateutil>=2.8.2 in /usr/local/lib/python3.10/dist-packages (from pandas>=0.23.4->deepface) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-packages (from pandas>=0.23.4->deepface) (2024.1)
Requirement already satisfied: tzdata>=2022.1 in /usr/local/lib/python3.10/dist-packages (from pandas>=0.23.4->deepface) (2024.1)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.10/dist-packages (from requests>=2.27.1->deepface) (3.3.2)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-packages (from requests>=2.27.1->deepface) (3.8)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.10/dist-packages (from requests>=2.27.1->deepface) (2.2.3)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.10/dist-packages (from requests>=2.27.1->deepface) (2024.7.4)
Requirement already satisfied: astunparse>=1.6.0 in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (1.6.0)
Requirement already satisfied: flatbuffers>=24.3.25 in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (24.3.25)
Requirement already satisfied: gast!=0.5.0,!0.5.1,!0.5.2,>=0.2.1 in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (0.6.0)
Requirement already satisfied: google-pasta>=0.1.1 in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (0.2.0)
Requirement already satisfied: libclang>=13.0.0 in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (18.1.0)
Requirement already satisfied: opt-einsum>=2.3.2 in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (3.3.0)
Requirement already satisfied: protobuf!=4.21.0,!4.21.1,!4.21.2,!4.21.3,!4.21.4,!4.21.5,<5.0.0dev,>=3.20.3 in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (4.25.3)
Requirement already satisfied: setuptools in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (71.0.4)
Requirement already satisfied: typing-extensions>=3.6.6 in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (4.12.2)
Requirement already satisfied: wrapt>=1.11.0 in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (1.16.0)
```

```
from deepface import DeepFace
pred=DeepFace.analyze(img)
```

```
24-09-10 14:15:42 - Directory /root/.deepface has been created
24-09-10 14:15:42 - Directory /root/.deepface/weights has been created
Action: emotion: 0% | 0/4 [00:00<?, ?it/s] 24-09-10 14:15:44 - facial_expression_model_weights.h5 will be downloaded.
Downloading...
From: https://github.com/serengil/deepface\_models/releases/download/v1.0/facial\_expression\_model\_weights.h5
To: /root/.deepface/weights/facial_expression_model_weights.h5

100% |██████████| 5.98M/5.98M [00:00<00:00, 69.5MB/s]
Action: age: 25% |███ | 1/4 [00:00<00:02, 1.19it/s] Downloading...
From: https://github.com/serengil/deepface\_models/releases/download/v1.0/age\_model\_weights.h5
To: /root/.deepface/weights/age_model_weights.h5
24-09-10 14:15:47 - age_model_weights.h5 will be downloaded...
```

```
0% | | 0.00/539M [00:00<?, ?B/s]
2% |██ | 10.5M/539M [00:00<00:05, 105MB/s]
8% |████ | 41.4M/539M [00:00<00:02, 223MB/s]
13% |██████ | 70.3M/539M [00:00<00:01, 251MB/s]
19% |████████ | 101M/539M [00:00<00:01, 271MB/s]
24% |██████████ | 128M/539M [00:00<00:01, 253MB/s]
29% |████████████ | 154M/539M [00:00<00:01, 221MB/s]
33% |█████████████ | 177M/539M [00:00<00:01, 218MB/s]
38% |██████████████ | 204M/539M [00:00<00:01, 235MB/s]
42% |███████████████ | 229M/539M [00:00<00:01, 231MB/s]
47% |███████████████ | 252M/539M [00:02<00:05, 56.4MB/s]
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52% |███████████████ | 282M/539M [00:05<00:13, 19.4MB/s]
55% |███████████████ | 299M/539M [00:05<00:09, 25.8MB/s]
58% |███████████████ | 314M/539M [00:06<00:06, 32.9MB/s]
61% |███████████████ | 328M/539M [00:06<00:05, 40.4MB/s]
65% |███████████████ | 349M/539M [00:06<00:03, 56.7MB/s]
68% |███████████████ | 365M/539M [00:06<00:02, 65.7MB/s]
71% |███████████████ | 381M/539M [00:06<00:01, 79.0MB/s]
73% |███████████████ | 396M/539M [00:06<00:01, 90.3MB/s]
76% |███████████████ | 411M/539M [00:06<00:01, 101MB/s]
79% |███████████████ | 427M/539M [00:06<00:00, 115MB/s]
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83%|██████████| 448M/539M [00:06<00:00, 136MB/s]
88%|██████████| 472M/539M [00:06<00:00, 162MB/s]
92%|██████████| 495M/539M [00:07<00:00, 181MB/s]
100%|██████████| 539M/539M [00:07<00:00, 74.2MB/s]
Action: gender: 50%|██████| 2/4 [00:12<00:14, 7.11s/it]24-09-10 14:15:58 - gender_model_weights.h5 will be downloaded...
Downloading...
From: https://github.com/serengil/deepface\_models/releases/download/v1.0/gender\_model\_weights.h5
To: /root/.deepface/weights/gender_model_weights.h5
```

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0%|          | 0.00/537M [00:00<?, ?B/s]
1%|          | 7.86M/537M [00:00<00:06, 78.6MB/s]
7%|          | 36.7M/537M [00:00<00:02, 200MB/s]
12%|         | 65.0M/537M [00:00<00:01, 237MB/s]
17%|         | 93.3M/537M [00:00<00:01, 255MB/s]
22%|         | 119M/537M [00:00<00:01, 246MB/s]
27%|         | 144M/537M [00:00<00:01, 231MB/s]
31%|         | 167M/537M [00:00<00:01, 212MB/s]
36%|         | 191M/537M [00:00<00:01, 219MB/s]
40%|         | 217M/537M [00:00<00:01, 229MB/s]
45%|         | 241M/537M [00:01<00:01, 228MB/s]
49%|         | 264M/537M [00:01<00:01, 225MB/s]
```

```
type(pred)
pred
```

```
{'emotion': {'angry': 0.001434747719031293,
'disgust': 9.185615809648162e-10,
'fear': 39.52079713344574,
'happy': 0.044839546899311244,
'sad': 60.337090492248535,
'surprise': 9.767813935468439e-06,
'neutral': 0.09583064238540828},
'dominant_emotion': 'sad',
'region': {'x': 236,
'y': 505,
'w': 534,
'h': 534,
'left_eye': None,
'right_eye': None},
'face_confidence': 0.95,
'age': 21,
'gender': {'Woman': 11.119073629379272, 'Man': 88.8809323310852},
'dominant_gender': 'Man',
'race': {'asian': 4.919382850490979,
'indian': 2.1210315970201252,
'black': 0.23812483087181036,
'white': 35.61593506431193,
'middle eastern': 11.163309881884448,
'latino hispanic': 45.94221984995722},
'dominant_race': 'latino hispanic']}
```

```
prediction=pred[0]
prediction["dominant_emotion"]
```

