

# **SIGNS-OF-AGEING**

## **PROBLEM DEFINITION:**

In this project, We collected the dataset for the different signs of ageing and processed the data. We used three Deep Learning Models to localize different signs of ageing as mentioned puffy eyes, wrinkles and dark spots on the face and trained the model. Regarding the website, there is a frontend and a backend Using flask (Python framework) we integrated the model and made a web portal. The model using efficient net(B0) will take the input image and based on the training it will classify.

## **HOW TO RUN:**

Python interpreter should be in the local directory.

Install all the software and the dependencies as mentioned below.

Run main.py from root directory folder.

## **NOTE:**

- *In “main.py” file from “flask\_application” folder provides the complete path of static/downloads/ directory in line no 150 and line no 155 to read the processed images*

- *In “main.py” provide the complete path of the models which are saved in “flask\_application” directory (these are present in “main.py” in line no 23 ,24 ,25).*

## **DATASET:**

Collected on the basis of classification and stored it in the folder inside the zip file.

## **SOFTWARE USED:**

- Anaconda 3.7.4
- PyCharm
- Python 3.7.9
- Jupyter Notebook

## **DEPENDENCIES OR PACKAGE NEED TO BE INSTALLED:**

1. Flask==2.0.1
2. Jinja2==3.0.1
3. Keras==2.4.3
4. Keras-Preprocessing==1.1.2
5. Markdown==3.3.4
6. MarkupSafe==2.0.1
7. Pillow==8.2.0
8. PyYAML==5.4.1
9. Werkzeug==2.0.1

10.    absl-py==0.12.0
11.    astunparse==1.6.3
12.    cached-property==1.5.2
13.    cachetools==4.2.2
14.    certifi==2020.12.5
15.    chardet==4.0.0
16.    click==8.0.1
17.    colorama==0.4.4
18.    cyclr==0.10.0
19.    flatbuffers==1.12
20.    gast==0.4.0
21.    google-auth==1.30.0
22.    google-auth-oauthlib==0.4.4
23.    google-pasta==0.2.0
24.    grpcio==1.34.1
25.    h5py==3.1.0
26.    idna==2.10
27.    importlib-metadata==4.0.1
28.    itsdangerous==2.0.1
29.    keras-nightly==2.5.0.dev2021032900
30.    kiwisolver==1.3.1
31.    matplotlib==3.4.2
32.    mtcnn==0.1.0
33.    mtcnn-opencv==1.0.2
34.    numpy==1.19.5
35.    oauthlib==3.1.0
36.    opencv-python==4.5.2.52
37.    opt-einsum==3.3.0
38.    pip==20.1.1

- 39.     protobuf==3.17.0
- 40.     pyasn1==0.4.8
- 41.     pyasn1-modules==0.2.8
- 42.     pyparsing==2.4.7
- 43.     python-dateutil==2.8.1
- 44.     requests==2.25.1
- 45.     requests-oauthlib==1.3.0
- 46.     rsa==4.7.2
- 47.     scipy==1.6.3
- 48.     setuptools==47.1.0
- 49.     six==1.15.0
- 50.     tensorboard==2.5.0
- 51.     tensorboard-data-server==0.6.1
- 52.     tensorboard-plugin-wit==1.8.0
- 53.     tensorflow==2.5.0
- 54.     tensorflow-estimator==2.5.0
- 55.     termcolor==1.1.0
- 56.     typing-extensions==3.7.4.3
- 57.     urllib3==1.26.4
- 58.     wheel==0.36.2
- 59.     wrapt==1.12.1
- 60.     zipp==3.4.1