*Transfer learning (ResNet and Mobilenet)*

In order to proceed with the transfer learning part it is required to use files contained in ‘transfer\_learning.zip’. All data (images) is stored in ‘UTKFace’. ResNet and Mobilenet are in ‘Transfer\_learning\_models\_and\_testing.ipynb’ notebook. All steps are included and should be executed in order presented in the file. Logs of our two final models are in the ‘logs\_enhanced’ folder.

*Dataset analysis*

Notebook called ‘dataset\_descriptive\_statistics.ipynb’ contains analysis of data and is contained in ‘transfer\_learning.zip’.

*CNN*

All of the files required for the CNN part are stored in ‘cnn.zip’. The dataset is in the ‘utk-data’ directory which contains - (1) ‘UTKFace’ with all of the images used in the dataset, (2) ‘wrong\_UTKFace’ with all images excluded from the dataset and (3) ‘cnn’ with the pickle files used for training the model. There are 2 jupyter notebooks - ‘create\_dataset\_files.ipynb’ which need to be run in order to create the pickle files and ‘utk\_age\_cnn.ipynb’ which creates the CNN age model.

*Face Recognition Project in Django*

Once the project has been downloaded, one should navigate to the project’s path in the terminal. Having all the prerequisites installed (listed in the report), one shall proceed to type ‘python manage.py runserver’ and execute. Afterwards, a prompt will show that the server has started, listing a local ip address with a port number that should be accessed in order to view the project. The rest is according to the use cases described in the report.

When it comes to uploading and saving media to the hard drive, a ‘media’ folder should be present in the project directory. Inside it, there are ‘image\_out’ and ‘video\_out’ folders where our processed media will be stored. There is also a ‘test’ folder containing two sample stock images and a video (showing Szymon Markiewicz). We have left it for testing purposes.