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Age & Gender Detection - Python
Prototype 1

Information About The Project

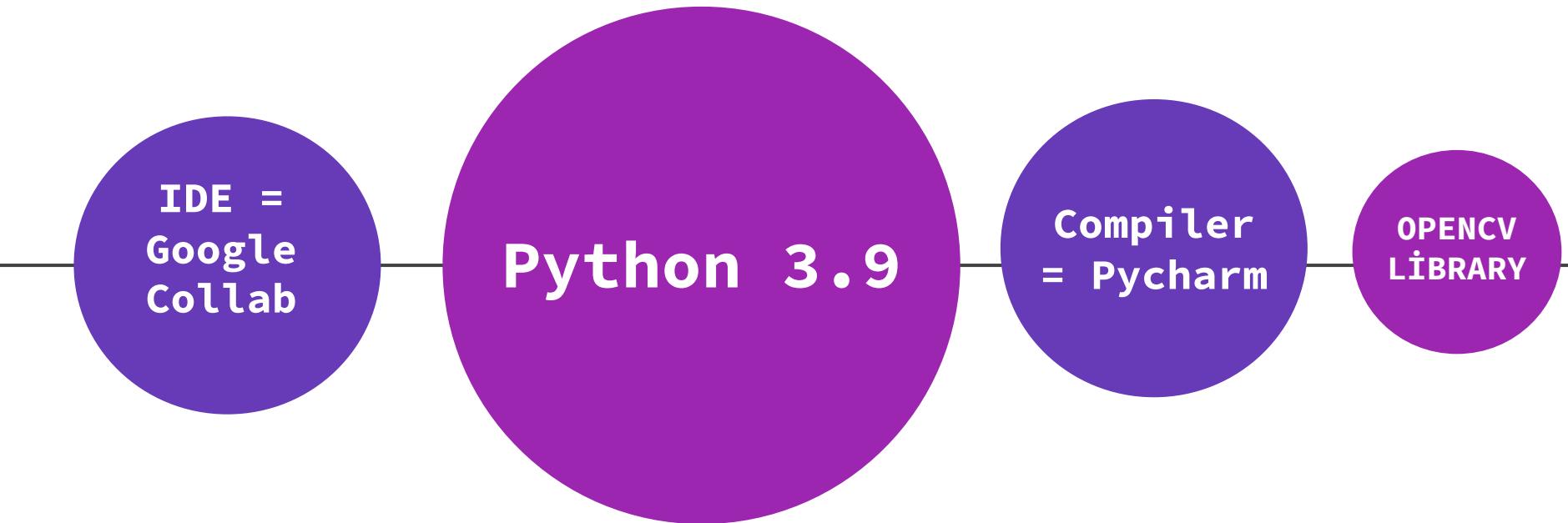
The project is written in Python.

(It could be also done by CNN).

What is the aim of my project?

*In this Python Project, we will utilize Deep Learning to
and age of an individual from a single image of face.*

What development tools and software languages did I use for my project?



What I used in my project?

- PYTHON 3.9
- GOOGLE COLLAB
- OPENCV LIBRARY
- MATH & TIME (OPENCV)

```
# Import required modules  
import cv2 as cv  
import math  
import time  
from google.colab.patches import cv2_imshow
```

chrome

```
# Downloading pretrained data and unzipping it
!gdown https://drive.google.com/uc?id=1_aDSc0vBeBLCn_iv0oxS08X1ySQpSbIS
# https://drive.google.com/uc?id=1_aDSc0vBeBLCn_iv0oxS08X1ySQpSbIS
!unzip modelNweight.zip
```

↳ Downloading...

```
From: https://drive.google.com/uc?id=1\_aDSc0vBeBLCn\_iv0oxS08X1ySQpSbIS
To: /content/age_and_gender_detection/age_and_gender_detection/model1
86.2MB [00:00, 206MB/s]
Archive: modelNweight.zip
  creating: modelNweight/
  inflating: modelNweight/age_deploy.prototxt
  inflating: modelNweight/age_net.caffemodel
  inflating: modelNweight/gender_deploy.prototxt
  inflating: modelNweight/gender_net.caffemodel
  inflating: modelNweight/opencv_face_detector.pbtxt
  inflating: modelNweight/opencv_face_detector_uint8.pb
```

Implementing pretrained datas to Age & Gender Detection project

In this function, I'm downloading my pretrained data from drive link, then unzipping it.

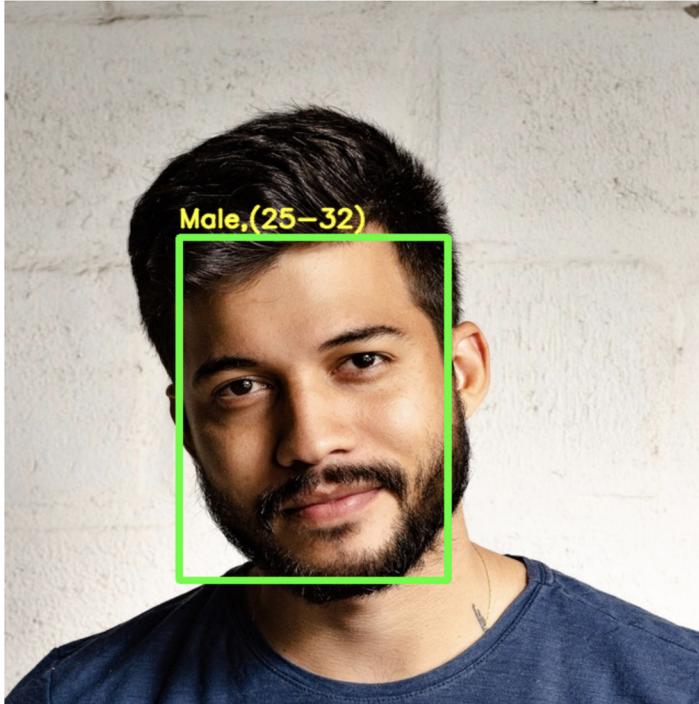
By doing this, we had implement our data sets into the project.

It contains gender (gender_deploy.prototxt) & age (age_deploy) caffemodels and txt files.

Then, datasets have implemented to our project, after running the code, it will give us the final outputs.

```
▶ input = cv.imread("image.jpg")
output = age_gender_detector(input)
cv2_imshow(output)
```

▷

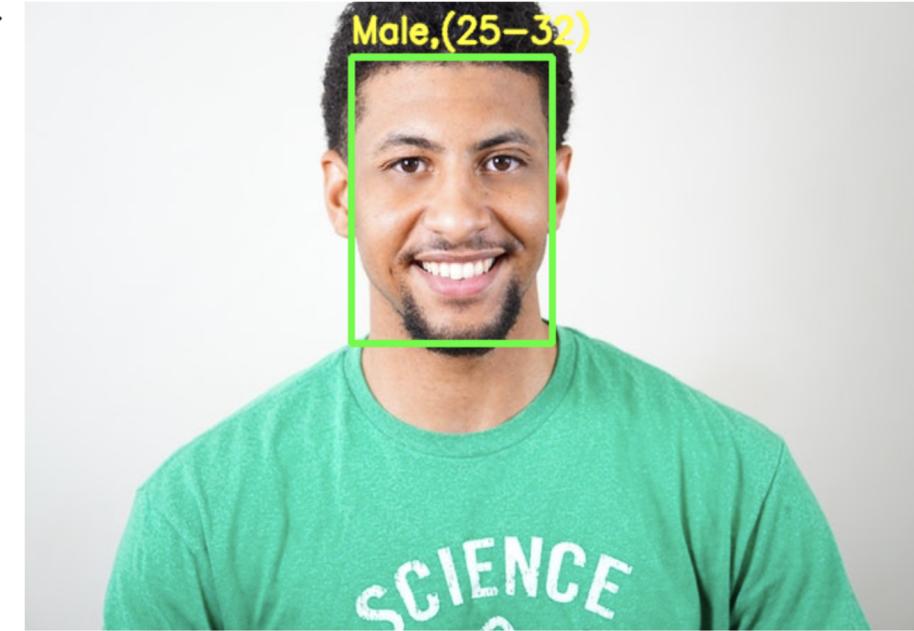


1st output

As you can see this is first output of this project.

```
▶ input = cv.imread("image1.jpg")
output = age_gender_detector(input)
cv2_imshow(output)
```

▷



2nd output

The 2nd output is also defined male from dataset. (random). And we can see the age prediction also.

PREREQUISITES

You'll need to install OpenCV (cv2) to be able to run this project. You can do this with pip-

```
pip install opencv-python
```

Other packages you'll be needing are math and argparse, but those come as part of the standard Python library.

Then we have to insert our pre trained dataset which is I found from internet...

https://drive.google.com/uc?id=1_aDScOvBeBLCn_iv0oxSO8x1ySQpSbIS

Resources:

<https://data.vision.ee.ethz.ch/cvl/rrothe/imdb-wiki/>

<https://sefiks.com/2020/09/07/age-and-gender-prediction-with-deep-learning-in-opencv/>

<https://www.youtube.com/channel/UCSY7giAI0bL7RkR6r-numiQ/about>

<https://learnopencv.com/>

THANK YOU FOR LISTENING!