May 30, 2019

1 HOW TO RUN THE CODE

Follow the below instructions to run the code

1.1 Install Dependencies

To install dependencies go to working directory through terminal there you will find a **requirements.txt** file, using this file we install all the dependencies by following command.

```
pip install -r requirements.txt
```

1.2 Download VGG-16 model

I have uploaded the Fine-tuned VGG-16 model in Google drive, we need to download this and place inside **Classification-API folder.**

> Follow the link below and download the Fine-tuned VGG-16 model
> https://drive.google.com/open?id=14sA6iycgN1qZgB-lqe8Z2z0zY39QW6vl

1.3 Download YOLOv2 weights

In order to run YOLO-Object-Recognition-API we need weights download it and place in **bin** folder i.e, here **YOLO-Object-Recognition-API/darkflow/bin/**, click the below link it will download the weights.

> https://pjreddie.com/media/files/yolov2-voc.weights

1.4 Notebooks

I have included the notebooks where we started from training small network followed by Data augmentation followed by fine tuning the VGG-16 and saving that model.

1.5 Run Classfication-API

In order to run the Classification API go to **Classification-API** folder through terminal and run the following commands.

```
export FLASK_APP=predict_app.py
flask run --host=0.0.0.0
```

Once the above commands are executed head towards the following link to see the Classification API

http://0.0.0.0:5000/static/predict.html

1.6 Run YOLO-Object-Recognition-API

In order to run the YOLO-Object-Recognition-API go to **YOLO-Object-Recognition-API/darkflow/** folder through terminal and run the following commands.

```
export FLASK_APP=yolo.py
flask run --host=0.0.0.0
```

Once the above commands are executed head towards the following link to see the YOLO Object Detection API

http://0.0.0.0:5000/