This is the manual on how to use the project “**A Deep Learning-based Approach for Accident Avoidance through Detection of Distracted Pedestrians using Vehicle and Pedestrian Detection”.**

The dataset used are COCO and PETA.

The Inceptionv2 model is a pre-trained model on the COCO dataset. The code loads the model and uses it to create the convolutional feature map.

“mscoco\_label\_map.pbtxt” is the label map for COCO dataset. This file can also be opened in notepad. This will let you see the labels that a COCO trained model can detect.

PETA contains a total of 19000 images. Only 2866 where distracted pedestrians. Therefore, we only took 2773 images of non-distracted people at random.

Start.py is the code that starts the program. It loads Inceptionv2 and the label map.

Detection.py is the code where the pedestrian-vehicle detection, pedestrian distraction prediction and path prediction happens.

Visualize.py is used to visualize the bounding boxes along with classification result and percentages.

Distraction\_model.py is the code with which we trained the Distraction model from scratch.

To start the project:

1. Open VS Code or any editor
2. Open backbone.py in editor. In **Line 45, add full address** of mscoco\_label\_map.pbtxt. An example address is given in the file.
3. Open Detection.py in editor. In **line 36, add full address of Distract03.h5**
4. Run **Start.py**
5. The output will be created after the program finishes.