

Object Counting in Image

Object counting in an image is the task of computer vision. There are a bunch of computer vision libraries in Python that you can use for this task. Here, I am taking a very simple approach to count objects in an image using Python.

How??

Counting objects in an image is a task of computer vision. There are many computer vision libraries that we can use for this task, such as OpenCV, TensorFlow, PyTorch, Scikit-image, and cvlib. It is a very simple, high level, and easy to use computer vision library in Python.

By using the features of this library we can count the number of objects in an image using Python.

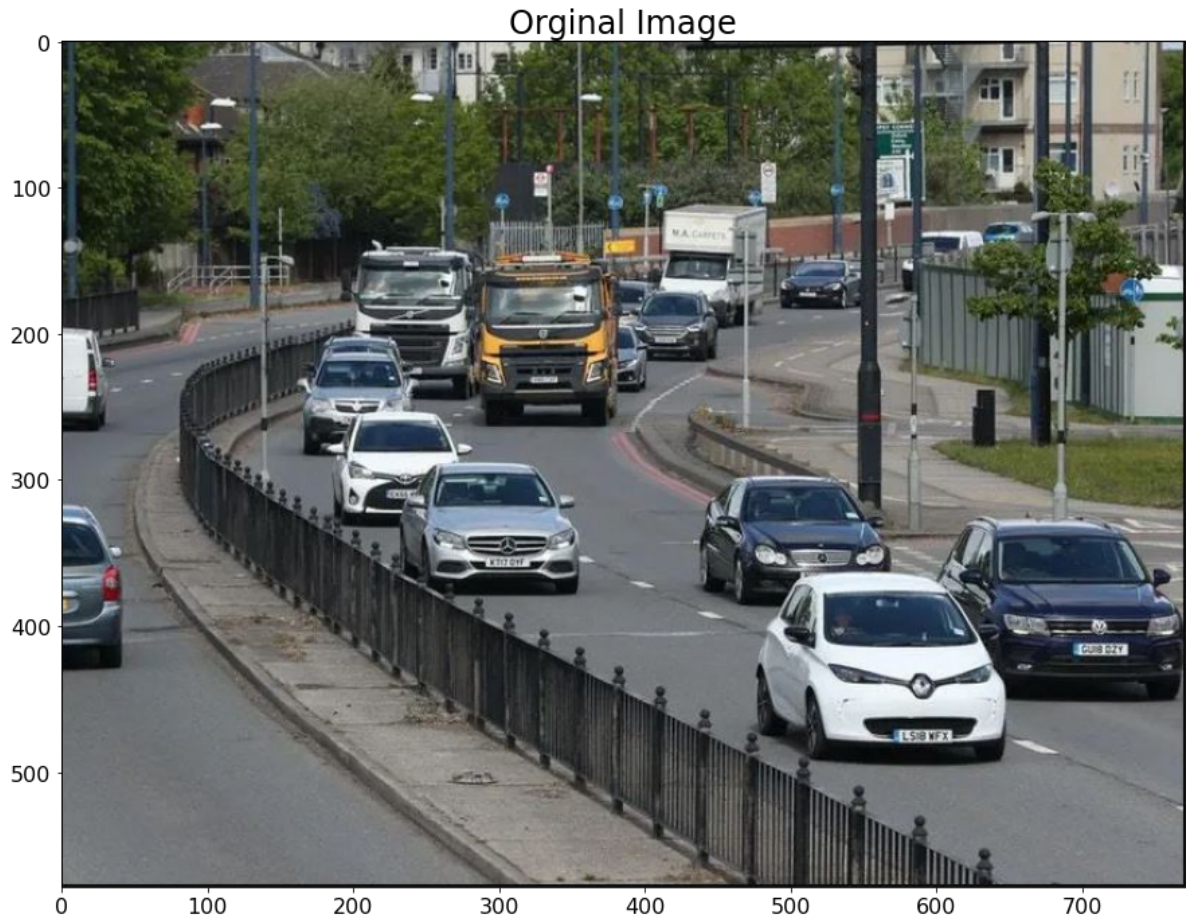
Explore

```
In [2]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import cv2
import cvlib as cv
from cvlib.object_detection import draw_bbox
from numpy.lib.polynomial import poly

%matplotlib inline
```

```
In [4]: image = cv2.imread(".\\data\\Capture.JPG")
image = cv2.cvtColor(image, cv2.COLOR_BGR2RGB)
plt.figure(figsize=(15,12))
plt.rc("font", size=16)
plt.title("Original Image", fontsize=24)
plt.imshow(image)
```

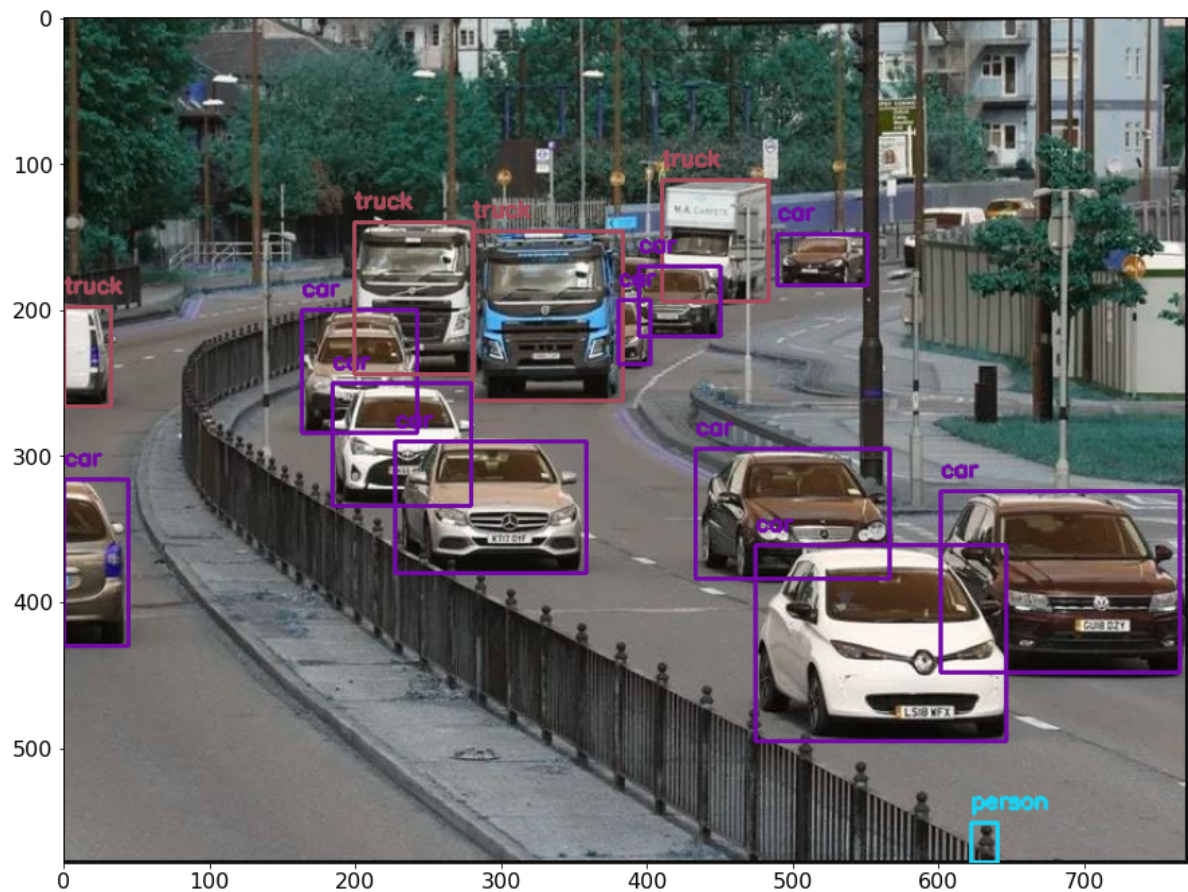
Out[4]: <matplotlib.image.AxesImage at 0x1d72d235e50>



Let's count

Here for the task of counting objects is an image using Python contains vehicles in it. So I will first detect all the vehicles and then count the number of cars out of them. So below is how I can count the number of cars in an image using Python.

```
In [6]: image1 = cv2.imread(".\\data\\Capture.JPG")
image1 = cv2.cvtColor(image, cv2.COLOR_BGR2RGB)
plt.figure(figsize=(15, 12))
box, label, count = cv.detect_common_objects(image1)
output = draw_bbox(image1, box, label, count)
plt.imshow(output)
plt.show()
print("Number of cars in this image are " +str(label.count('car'))))
print("Number of trucks in this image are " +str(label.count('truck'))))
```



Number of cars in this image are 10
Number of trucks in this image are 4

In []: