

501 Assignment P3

Monday, March 27, 2023 8:48 PM

```
✓ [2] #Setting up the environment, it might take 2-5 minutes to load the model
32s !cd ~
!rm -fr darknet
!git clone https://github.com/pjreddie/darknet
%cd darknet
!make
!wget https://pjreddie.com/media/files/yolov3.weights
```

Running the first cell
32 seconds to execute

```
#upload any jpg image, for object detection
from google.colab import files
from IPython.display import Image
import time

!rm *.jpg
uploaded = files.upload()
!cp *.jpg test.jpg
start_time = time.time()
!./darknet detect cfg/yolov3.cfg yolov3.weights test.jpg
print("Prediction is done in %s seconds" % (time.time() - start_time))
#display the result
Image('predictions.jpg')
#files.download('predictions.jpg') #download the prediction file

... rm: cannot remove '*.jpg': No such file or directory
Browse... No files selected. Cancel upload
```

Executing the 2nd cell which in turn requests the user to upload a file of type '.jpg'

LET US BEGIN!!!!

All photos were taken in mangere, from 12.14pm to 1.43pm on the 27/3/2023

Chris 01

```
Loading weights from yolov3.weights...Done!
test.jpg: Predicted in 22.192325 seconds.
car: 97%
car: 92%
car: 92%
Prediction is done in 24.8137047290802 seconds
```



3/3 accuracy

Chris 02

```
test.jpg: Predicted in 21.013841 seconds.
car: 93%
car: 79%
car: 75%
car: 56%
car: 52%
car: 51%
Prediction is done in 23.60889959335327 seconds
```



For some reason spotted 6 cars, but only 3 were in the picture. Saw a car in the tree and maybe the car in the far distance was counted as 2?? 3/3 accuracy but saw extras??

Chris 03

```
test.jpg: Predicted in 20.414019 seconds.
bus: 61%
car: 90%
Prediction is done in 23.002298593521118 seconds
```




Saw a bus, which was infact a van and missed a car. 1/3 accuracy for correct vehicle types, but spotted 2/3 vehicles total.

Chris 04

```
test.jpg: Predicted in 20.618825 seconds.
car: 96%
car: 88%
Prediction is done in 23.209230422973633 seconds
```



Perfect run. 2/2 cars spotted!

Chris 05

```
test.jpg: Predicted in 20.906233 seconds.
car: 91%
car: 73%
car: 71%
car: 58%
Prediction is done in 23.507888317108154 seconds
```



Another perfect execution for YOLO, 4/4 vehicles were spotted, and all 4 were correctly titled.

Chris 06

```
test.jpg: Predicted in 20.721368 seconds.  
car: 99%  
car: 88%  
Prediction is done in 23.297128915786743 seconds
```



Perfecto! 2/2 cars spotted

Chris 07

```
test.jpg: Predicted in 20.574601 seconds.  
car: 88%  
car: 85%  
Prediction is done in 23.199047565460205 seconds
```



Perfect prediction again. 2/2 cars

Chris 08

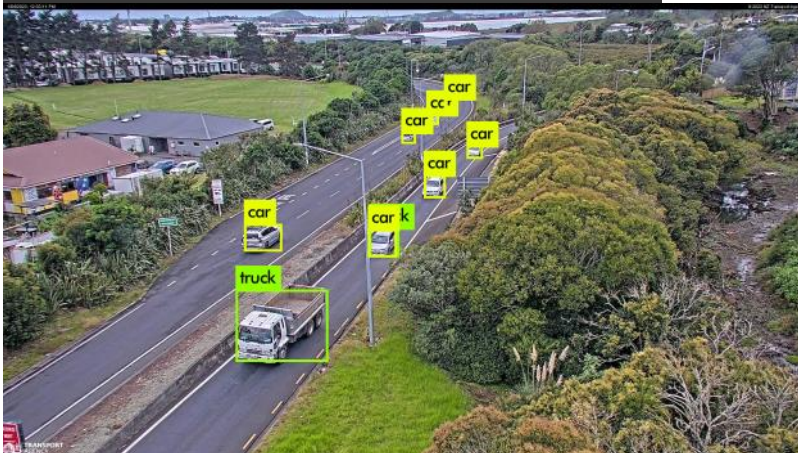
```
test.jpg: Predicted in 20.074136 seconds.  
truck: 53%  
car: 93%  
car: 72%  
Prediction is done in 22.799434185028076 seconds
```




2/2 cars but unfortunately called a car which was already recognized as a car, a truck also haha.

Chris 09

```
test.jpg: Predicted in 20.581777 seconds.
truck: 98%
truck: 69%
car: 56%
car: 95%
car: 93%
car: 90%
car: 88%
car: 85%
car: 74%
Prediction is done in 23.203032970428467 seconds
```



YAS! Truck was successfully spotted, but unfortunately 1 car was double called for being a car and a truck at the same time once again!. 7/7 cars, 2/1 trucks haha. almost a perfect score for the most vehicles in one pic so far.

Chris 10

```
test.jpg: Predicted in 21.399131 seconds.
car: 55%
truck: 70%
Prediction is done in 24.00193214416504 seconds
```



Once again this was a double call. But this time it called it a "car, truck" so in a way its correct. This is a ute, maybe that's what the comma is there for. I'll give it a pass haha. 1/1!?

Chris 11

```
test.jpg: Predicted in 20.280425 seconds.
car: 99%
car: 93%
car: 85%
car: 81%
Prediction is done in 23.311296463012695 seconds
```



Perfect prediction! 4/4 cars were spotted

Chris 12

```
test.jpg: Predicted in 21.102580 seconds.
car: 94%
car: 68%
Prediction is done in 24.20694351196289 seconds
```



Only 2/3 cars this time, the car by the trees/bush was missed sadly :(

Chris 13

```
test.jpg: Predicted in 21.127766 seconds.  
car: 92%  
car: 71%  
car: 61%  
Prediction is done in 23.70828866958618 seconds
```



3/3 cars spotted, PERFECTION!

Chris 14

```
test.jpg: Predicted in 20.466993 seconds.  
car: 97%  
car: 67%  
car: 58%  
Prediction is done in 23.511208295822144 seconds
```



Perfection again, 3/3 cars were spotted!

Chris 15

```
test.jpg: Predicted in 19.972470 seconds.  
car: 94%  
car: 72%  
car: 53%  
car: 52%  
car: 50%  
Prediction is done in 23.505987644195557 seconds
```



2/3 cars were spotted on the highway, and also registered a car in parked off the side of the highway and again the car in the top right corner! Yikes

Chris 16

```
test.jpg: Predicted in 22.129005 seconds.
car: 98%
car: 84%
car: 76%
car: 71%
Prediction is done in 24.709769248962402 seconds
```



PERFECTION once again, 4/4 cars spotted!

Chris 17

```
test.jpg: Predicted in 21.133980 seconds.
truck: 65%
car: 91%
car: 81%
car: 71%
Prediction is done in 23.703367948532104 seconds
```




Missed 3 vehicles this time and called a car a 'car/truck' once again. 3/6 :(

Chris 18

```
test.jpg: Predicted in 20.101679 seconds.
truck: 82%
car: 95%
car: 77%
car: 70%
Prediction is done in 22.799708366394043 seconds
```



All vehicles but 1 were accounted for but the accuracy of the van being called a truck, unsure of. 4/5 vehicle accuracy, 3/5 correct vehicle type.

Chris 19

```
test.jpg: Predicted in 21.179630 seconds.
truck: 84%
car: 97%
car: 96%
car: 91%
car: 81%
Prediction is done in 23.800922393798828 seconds
```



Once again a van was called a truck so I'm gonna assume that is the correct call. Truck = van type also. Perfect picture! 5/5 vehicles spotted!

Chris 20

```
test.jpg: Predicted in 20.202593 seconds.
car: 86%
car: 82%
Prediction is done in 23.71072959899023 seconds
```



Perfection but as expected for a 2 vehicle image! 2/2!

Chris 21

```
test.jpg: Predicted in 20.416954 seconds.
car: 94%
car: 85%
Prediction is done in 23.90801215171814 seconds
```



Sadly the obstruction of the lamppost was enough to deter the prediction of the final car to make this a perfect run also. 2/3 vehicles. 2/4 if we include the car in the very far distance.

Chris 22

```
test.jpg: Predicted in 20.210737 seconds.  
truck: 83%  
car: 99%  
car: 93%  
car: 81%  
car: 74%  
Prediction is done in 23.800647020339966 seconds
```



Perfect prediction if we exclude the car in the furthest part of the highway, 4/4 vehicles spotted! Good learning indeed.

Chris 23

```
test.jpg: Predicted in 20.349315 seconds.  
car: 69%  
Prediction is done in 23.216302156448364 seconds
```



HAHA 1 car in this pic, and 1 car was spotted! GOOD STUFF YOLO! 1/1 PERFECTION

Chris 24

```
test.jpg: Predicted in 20.895569 seconds.  
truck: 67%  
Prediction is done in 23.512370824813843 seconds
```



Roads must be a lil quieter right now (1.08pm on a Saturday); But 1 car spotted but wrongly titled as a 'truck'. 0/1

Chris 25

```
test.jpg: Predicted in 21.061012 seconds.
car: 86%
Prediction is done in 23.605482578277588 seconds
```



Another 1 car pic, and 1 car was successfully spotted! 1/1

Chris 26

```
test.jpg: Predicted in 21.025923 seconds.
car: 96%
car: 89%
car: 83%
car: 75%
car: 51%
Prediction is done in 24.21230673789978 seconds
```



A near perfect picture, if it weren't for you meddling kids in the top right corner of the mystery van

eating scooby snacks. 5/4! haha

Chris 27

```
test.jpg: Predicted in 20.960013 seconds.  
car: 99%  
car: 89%  
car: 86%  
car: 56%  
car: 50%  
Prediction is done in 23.502135515213013 seconds
```



Once again we have a mystery car on the top right, but beyond that. All cars were successfully predicted! 3/3

Chris 28

```
test.jpg: Predicted in 20.605435 seconds.  
car: 93%  
car: 73%  
Prediction is done in 23.20707607269287 seconds
```



100% success yet again, perfect execution with yolo for 2/2

Chris 29

```
test.jpg: Predicted in 21.137948 seconds.  
car: 99%  
car: 98%  
car: 95%  
car: 80%  
car: 51%  
Prediction is done in 23.70603084564209 seconds
```



100% prediction once again, these last few photos have been excellent! 4/4 cars

Chris 30 (FINALE)

```
test.jpg: Predicted in 20.027213 seconds.
car: 97%
car: 75%
Prediction is done in 22.906542539596558 seconds
```



FINALE WAS A SUCCESS! 2/2 cars found! well done, good way to finish!