

```
# mount Google Drive
from google.colab import drive
drive.mount('/content/gdrive')
%cd gdrive/MyDrive

Mounted at /content/gdrive
/content/gdrive/MyDrive

# importing all the required libraries
import matplotlib.pyplot as plt
import numpy as np
import os
import random
import time
import torch
import cv2

#loading YOLOv7
!git clone https://github.com/WongKinYiu/yolov7
!cd yolov7
!pip install -r requirements.txt
!cp yolov7/requirements.txt ./

fatal: destination path 'yolov7' already exists and is not an empty
directory.
Looking in indexes: https://pypi.org/simple, https://us-
python.pkg.dev/colab-wheels/public/simple/
Requirement already satisfied: matplotlib>=3.2.2 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
4)) (3.2.2)
Requirement already satisfied: numpy<1.24.0,>=1.18.5 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
5)) (1.21.6)
Requirement already satisfied: opencv-python>=4.1.1 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
6)) (4.6.0.66)
Requirement already satisfied: Pillow>=7.1.2 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
7)) (7.1.2)
Requirement already satisfied: PyYAML>=5.3.1 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
8)) (6.0)
Requirement already satisfied: requests>=2.23.0 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
9)) (2.25.1)
Requirement already satisfied: scipy>=1.4.1 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
10)) (1.7.3)
Requirement already satisfied: torch!=1.12.0,>=1.7.0 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
11)) (1.13.1+cu116)
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Requirement already satisfied: torchvision!=0.13.0,>=0.8.1 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
12)) (0.14.1+cu116)
Requirement already satisfied: tqdm>=4.41.0 in
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Requirement already satisfied: protobuf<4.21.3 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
14)) (3.19.6)
Requirement already satisfied: tensorboard>=2.4.1 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
17)) (2.9.1)
Requirement already satisfied: pandas>=1.1.4 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
21)) (1.3.5)
Requirement already satisfied: seaborn>=0.11.0 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
22)) (0.11.2)
Requirement already satisfied: ipython in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
34)) (7.9.0)
Requirement already satisfied: psutil in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
35)) (5.4.8)
Requirement already satisfied: thop in /usr/local/lib/python3.8/dist-
packages (from -r requirements.txt (line 36)) (0.1.1.post2209072238)
Requirement already satisfied: python-dateutil>=2.1 in
/usr/local/lib/python3.8/dist-packages (from matplotlib>=3.2.2->-r
requirements.txt (line 4)) (2.8.2)
Requirement already satisfied: kiwisolver>=1.0.1 in
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requirements.txt (line 4)) (1.4.4)
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/usr/local/lib/python3.8/dist-packages (from matplotlib>=3.2.2->-r
requirements.txt (line 4)) (0.11.0)
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=2.1.6,>=2.0.1 in /usr/local/lib/python3.8/dist-packages (from
matplotlib>=3.2.2->-r requirements.txt (line 4)) (3.0.9)
Requirement already satisfied: chardet<5,>=3.0.2 in
/usr/local/lib/python3.8/dist-packages (from requests>=2.23.0->-r
requirements.txt (line 9)) (4.0.0)
Requirement already satisfied: idna<3,>=2.5 in
/usr/local/lib/python3.8/dist-packages (from requests>=2.23.0->-r
requirements.txt (line 9)) (2.10)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in
/usr/local/lib/python3.8/dist-packages (from requests>=2.23.0->-r
requirements.txt (line 9)) (1.24.3)
Requirement already satisfied: certifi>=2017.4.17 in
/usr/local/lib/python3.8/dist-packages (from requests>=2.23.0->-r
requirements.txt (line 9)) (2022.12.7)
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Requirement already satisfied: typing-extensions in
/usr/local/lib/python3.8/dist-packages (from torch!=1.12.0,>=1.7.0->-r
requirements.txt (line 11)) (4.4.0)
Requirement already satisfied: grpcio>=1.24.3 in
/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (1.51.1)
Requirement already satisfied: tensorboard-plugin-wit>=1.6.0 in
/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (1.8.1)
Requirement already satisfied: werkzeug>=1.0.1 in
/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (1.0.1)
Requirement already satisfied: tensorboard-data-server<0.7.0,>=0.6.0
in /usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (0.6.1)
Requirement already satisfied: wheel>=0.26 in
/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (0.38.4)
Requirement already satisfied: google-auth-oauthlib<0.5,>=0.4.1 in
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Requirement already satisfied: markdown>=2.6.8 in
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requirements.txt (line 17)) (3.4.1)
Requirement already satisfied: google-auth<3,>=1.6.3 in
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requirements.txt (line 17)) (2.16.0)
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/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (1.3.0)
Requirement already satisfied: setuptools>=41.0.0 in
/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (57.4.0)
Requirement already satisfied: pytz>=2017.3 in
/usr/local/lib/python3.8/dist-packages (from pandas>=1.1.4->-r
requirements.txt (line 21)) (2022.7)
Requirement already satisfied: prompt-toolkit<2.1.0,>=2.0.0 in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (2.0.10)
Requirement already satisfied: pygments in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (2.6.1)
Requirement already satisfied: backcall in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (0.2.0)
Requirement already satisfied: traitlets>=4.2 in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (5.7.1)
Requirement already satisfied: pexpect in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
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requirements.txt (line 34)) (4.8.0)
Requirement already satisfied: jedi>=0.10 in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (0.18.2)
Requirement already satisfied: pickleshare in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (0.7.5)
Requirement already satisfied: decorator in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (4.4.2)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in
/usr/local/lib/python3.8/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard>=2.4.1->-r requirements.txt (line 17)) (5.2.1)
Requirement already satisfied: pyasn1-modules>=0.2.1 in
/usr/local/lib/python3.8/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard>=2.4.1->-r requirements.txt (line 17)) (0.2.8)
Requirement already satisfied: six>=1.9.0 in
/usr/local/lib/python3.8/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard>=2.4.1->-r requirements.txt (line 17)) (1.15.0)
Requirement already satisfied: rsa<5,>=3.1.4 in
/usr/local/lib/python3.8/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard>=2.4.1->-r requirements.txt (line 17)) (4.9)
Requirement already satisfied: requests-oauthlib>=0.7.0 in
/usr/local/lib/python3.8/dist-packages (from google-auth-
oauthlib<0.5,>=0.4.1->tensorboard>=2.4.1->-r requirements.txt (line
17)) (1.3.1)
Requirement already satisfied: parso<0.9.0,>=0.8.0 in
/usr/local/lib/python3.8/dist-packages (from jedi>=0.10->ipython->-r
requirements.txt (line 34)) (0.8.3)
Requirement already satisfied: importlib-metadata>=4.4 in
/usr/local/lib/python3.8/dist-packages (from markdown>=2.6.8-
>tensorboard>=2.4.1->-r requirements.txt (line 17)) (6.0.0)
Requirement already satisfied: wcwidth in
/usr/local/lib/python3.8/dist-packages (from prompt-
toolkit<2.1.0,>=2.0.0->ipython->-r requirements.txt (line 34)) (0.2.5)
Requirement already satisfied: ptyprocess>=0.5 in
/usr/local/lib/python3.8/dist-packages (from pexpect->ipython->-r
requirements.txt (line 34)) (0.7.0)
Requirement already satisfied: zipp>=0.5 in
/usr/local/lib/python3.8/dist-packages (from importlib-metadata>=4.4-
>markdown>=2.6.8->tensorboard>=2.4.1->-r requirements.txt (line 17))
(3.11.0)
Requirement already satisfied: pyasn1<0.5.0,>=0.4.6 in
/usr/local/lib/python3.8/dist-packages (from pyasn1-modules>=0.2.1-
>google-auth<3,>=1.6.3->tensorboard>=2.4.1->-r requirements.txt (line
17)) (0.4.8)
Requirement already satisfied: oauthlib>=3.0.0 in
/usr/local/lib/python3.8/dist-packages (from requests-oauthlib>=0.7.0-
>google-auth-oauthlib<0.5,>=0.4.1->tensorboard>=2.4.1->-r
requirements.txt (line 17)) (3.2.2)
```

```
!pwd
/content/gdrive/MyDrive
#loading the images

list_img = os.listdir("yolov7/open_image")

len(list_img)
24

#loading YOL0v7
!git clone https://github.com/WongKinYiu/yolov7
%cd yolov7
!pip install -r requirements.txt
!cp yolov7/requirements.txt ./

fatal: destination path 'yolov7' already exists and is not an empty
directory.
/content/gdrive/MyDrive/yolov7
Looking in indexes: https://pypi.org/simple, https://us-
python.pkg.dev/colab-wheels/public/simple/
Requirement already satisfied: matplotlib>=3.2.2 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
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/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
8)) (6.0)
Requirement already satisfied: requests>=2.23.0 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
9)) (2.25.1)
Requirement already satisfied: scipy>=1.4.1 in
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Requirement already satisfied: torch!=1.12.0,>=1.7.0 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
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Requirement already satisfied: torchvision!=0.13.0,>=0.8.1 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
12)) (0.14.1+cu116)
Requirement already satisfied: tqdm>=4.41.0 in
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13)) (4.64.1)
Requirement already satisfied: protobuf<4.21.3 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
14)) (3.19.6)
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/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
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Requirement already satisfied: pandas>=1.1.4 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
21)) (1.3.5)
Requirement already satisfied: seaborn>=0.11.0 in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
22)) (0.11.2)
Requirement already satisfied: ipython in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
34)) (7.9.0)
Requirement already satisfied: psutil in
/usr/local/lib/python3.8/dist-packages (from -r requirements.txt (line
35)) (5.4.8)
Requirement already satisfied: thop in /usr/local/lib/python3.8/dist-
packages (from -r requirements.txt (line 36)) (0.1.1.post2209072238)
Requirement already satisfied: cycler>=0.10 in
/usr/local/lib/python3.8/dist-packages (from matplotlib>=3.2.2->-r
requirements.txt (line 4)) (0.11.0)
Requirement already satisfied: pyparsing!=2.0.4,!=2.1.2,!=
2.1.6,>=2.0.1 in /usr/local/lib/python3.8/dist-packages (from
matplotlib>=3.2.2->-r requirements.txt (line 4)) (3.0.9)
Requirement already satisfied: kiwisolver>=1.0.1 in
/usr/local/lib/python3.8/dist-packages (from matplotlib>=3.2.2->-r
requirements.txt (line 4)) (1.4.4)
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/usr/local/lib/python3.8/dist-packages (from matplotlib>=3.2.2->-r
requirements.txt (line 4)) (2.8.2)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in
/usr/local/lib/python3.8/dist-packages (from requests>=2.23.0->-r
requirements.txt (line 9)) (1.24.3)
Requirement already satisfied: chardet<5,>=3.0.2 in
/usr/local/lib/python3.8/dist-packages (from requests>=2.23.0->-r
requirements.txt (line 9)) (4.0.0)
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/usr/local/lib/python3.8/dist-packages (from requests>=2.23.0->-r
requirements.txt (line 9)) (2022.12.7)
Requirement already satisfied: idna<3,>=2.5 in
/usr/local/lib/python3.8/dist-packages (from requests>=2.23.0->-r
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Requirement already satisfied: typing-extensions in
/usr/local/lib/python3.8/dist-packages (from torch!=1.12.0,>=1.7.0->-r
requirements.txt (line 11)) (4.4.0)
Requirement already satisfied: google-auth<3,>=1.6.3 in
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/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (2.16.0)
Requirement already satisfied: absl-py>=0.4 in
/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (1.3.0)
Requirement already satisfied: markdown>=2.6.8 in
/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (3.4.1)
Requirement already satisfied: grpcio>=1.24.3 in
/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (1.51.1)
Requirement already satisfied: google-auth-oauthlib<0.5,>=0.4.1 in
/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (0.4.6)
Requirement already satisfied: tensorboard-data-server<0.7.0,>=0.6.0
in /usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (0.6.1)
Requirement already satisfied: setuptools>=41.0.0 in
/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (57.4.0)
Requirement already satisfied: tensorboard-plugin-wit>=1.6.0 in
/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (1.8.1)
Requirement already satisfied: wheel>=0.26 in
/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
requirements.txt (line 17)) (0.38.4)
Requirement already satisfied: werkzeug>=1.0.1 in
/usr/local/lib/python3.8/dist-packages (from tensorboard>=2.4.1->-r
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requirements.txt (line 21)) (2022.7)
Requirement already satisfied: decorator in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (4.4.2)
Requirement already satisfied: pickleshare in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (0.7.5)
Requirement already satisfied: backcall in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (0.2.0)
Requirement already satisfied: jedi>=0.10 in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (0.18.2)
Requirement already satisfied: pexpect in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (4.8.0)
Requirement already satisfied: prompt-toolkit<2.1.0,>=2.0.0 in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (2.0.10)
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Requirement already satisfied: traitlets>=4.2 in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (5.7.1)
Requirement already satisfied: pygments in
/usr/local/lib/python3.8/dist-packages (from ipython->-r
requirements.txt (line 34)) (2.6.1)
Requirement already satisfied: pyasn1-modules>=0.2.1 in
/usr/local/lib/python3.8/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard>=2.4.1->-r requirements.txt (line 17)) (0.2.8)
Requirement already satisfied: six>=1.9.0 in
/usr/local/lib/python3.8/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard>=2.4.1->-r requirements.txt (line 17)) (1.15.0)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in
/usr/local/lib/python3.8/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard>=2.4.1->-r requirements.txt (line 17)) (5.2.1)
Requirement already satisfied: rsa<5,>=3.1.4 in
/usr/local/lib/python3.8/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard>=2.4.1->-r requirements.txt (line 17)) (4.9)
Requirement already satisfied: requests-oauthlib>=0.7.0 in
/usr/local/lib/python3.8/dist-packages (from google-auth-
oauthlib<0.5,>=0.4.1->tensorboard>=2.4.1->-r requirements.txt (line
17)) (1.3.1)
Requirement already satisfied: parso<0.9.0,>=0.8.0 in
/usr/local/lib/python3.8/dist-packages (from jedi>=0.10->ipython->-r
requirements.txt (line 34)) (0.8.3)
Requirement already satisfied: importlib-metadata>=4.4 in
/usr/local/lib/python3.8/dist-packages (from markdown>=2.6.8-
>tensorboard>=2.4.1->-r requirements.txt (line 17)) (6.0.0)
Requirement already satisfied: wcwidth in
/usr/local/lib/python3.8/dist-packages (from prompt-
toolkit<2.1.0,>=2.0.0->ipython->-r requirements.txt (line 34)) (0.2.5)
Requirement already satisfied: ptyprocess>=0.5 in
/usr/local/lib/python3.8/dist-packages (from pexpect->ipython->-r
requirements.txt (line 34)) (0.7.0)
Requirement already satisfied: zipp>=0.5 in
/usr/local/lib/python3.8/dist-packages (from importlib-metadata>=4.4-
>markdown>=2.6.8->tensorboard>=2.4.1->-r requirements.txt (line 17))
(3.11.0)
Requirement already satisfied: pyasn1<0.5.0,>=0.4.6 in
/usr/local/lib/python3.8/dist-packages (from pyasn1-modules>=0.2.1-
>google-auth<3,>=1.6.3->tensorboard>=2.4.1->-r requirements.txt (line
17)) (0.4.8)
Requirement already satisfied: oauthlib>=3.0.0 in
/usr/local/lib/python3.8/dist-packages (from requests-oauthlib>=0.7.0-
>google-auth-oauthlib<0.5,>=0.4.1->tensorboard>=2.4.1->-r
requirements.txt (line 17)) (3.2.2)

!wget
https://github.com/WongKinYiu/yolov7/releases/download/v0.1/yolov7.pt
```

```
--2023-01-23 09:55:15--  
https://github.com/WongKinYiu/yolov7/releases/download/v0.1/yolov7.pt  
Resolving github.com (github.com)... 140.82.113.4  
Connecting to github.com (github.com)|140.82.113.4|:443... connected.  
HTTP request sent, awaiting response... 302 Found  
Location: https://objects.githubusercontent.com/github-production-  
release-asset-2e65be/511187726/b0243edf-9fb0-4337-95e1-42555f1b37cf?X-  
Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWNYAX4CSVEH53A  
%2F20230123%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-  
Date=20230123T095515Z&X-Amz-Expires=300&X-Amz-  
Signature=6ace3dc31817171218d770c69c9aa4c1155c60f2631c5bce304872aef80b  
5c47&X-Amz-  
SignedHeaders=host&actor_id=0&key_id=0&repo_id=511187726&response-  
content-disposition=attachment%3B%20filename%3Dyolov7.pt&response-  
content-type=application%2Foctet-stream [following]  
--2023-01-23 09:55:15-- https://objects.githubusercontent.com/github-  
production-release-asset-2e65be/511187726/b0243edf-9fb0-4337-95e1-  
42555f1b37cf?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-  
Credential=AKIAIWNYAX4CSVEH53A%2F20230123%2Fus-east-  
1%2Fs3%2Faws4_request&X-Amz-Date=20230123T095515Z&X-Amz-Expires=300&X-  
Amz-  
Signature=6ace3dc31817171218d770c69c9aa4c1155c60f2631c5bce304872aef80b  
5c47&X-Amz-  
SignedHeaders=host&actor_id=0&key_id=0&repo_id=511187726&response-  
content-disposition=attachment%3B%20filename%3Dyolov7.pt&response-  
content-type=application%2Foctet-stream  
Resolving objects.githubusercontent.com  
(objects.githubusercontent.com)... 185.199.109.133, 185.199.108.133,  
185.199.110.133, ...  
Connecting to objects.githubusercontent.com  
(objects.githubusercontent.com)|185.199.109.133|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 75587165 (72M) [application/octet-stream]  
Saving to: 'yolov7.pt.6'
```

```
yolov7.pt.6      100%[=====] 72.08M 55.7MB/s    in  
1.3s
```

```
2023-01-23 09:55:16 (55.7 MB/s) - 'yolov7.pt.6' saved  
[75587165/75587165]
```

#Saving the model YOL0v7

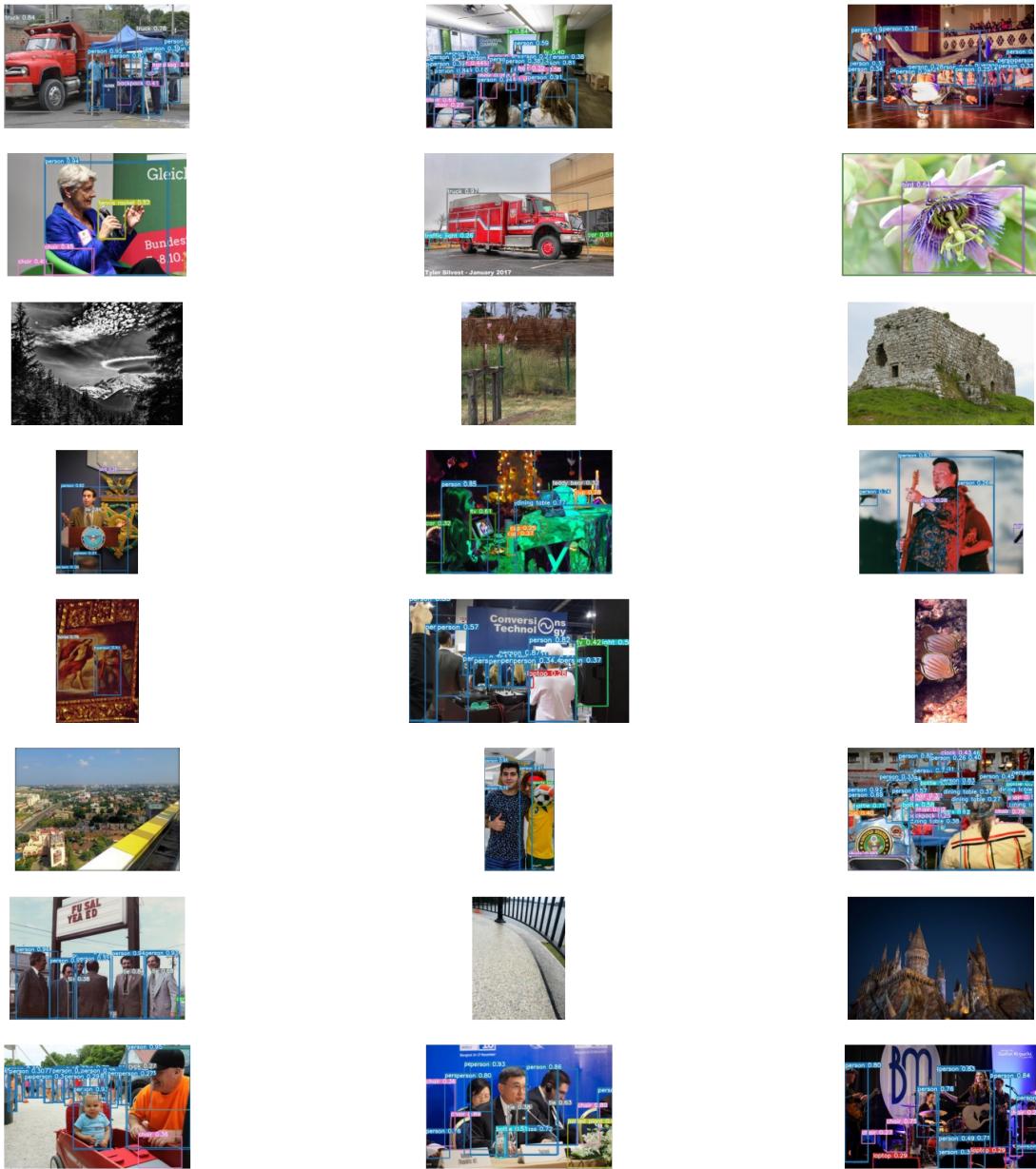
```
modelv7 = torch.hub.load('WongKinYiu/yolov7',  
'yolov7', pretrained=True)
```

```
Using cache found in /root/.cache/torch/hub/WongKinYiu_yolov7_main  
/usr/local/lib/python3.8/dist-packages/torch/functional.py:504:  
UserWarning: torch.meshgrid: in an upcoming release, it will be  
required to pass the indexing argument. (Triggered internally at
```

```
../aten/src/ATen/native/TensorShape.cpp:3190.)  
    return _VF.meshgrid(tensors, **kwargs) # type: ignore[attr-defined]  
  
Adding autoShape...  
  
!pwd  
  
/content/gdrive/MyDrive/yolov7  
  
list_img[0]  
  
{"type": "string"}  
  
modelv7("open_image/00000b4dcff7f799.jpg")  
  
<models.common.Detections at 0x7f1abd73c100>  
  
img = 'open_image/' + list_img[1]  
modelv7(img)  
  
<models.common.Detections at 0x7f1abd760370>  
  
for i in range(len(list_img)):  
    list_img[i] = 'open_image/' + list_img[i]  
  
  
list_img  
  
['open_image/00000b4dcff7f799.jpg',  
 'open_image/00001a21632de752.jpg',  
 'open_image/0007e8279612ac07.jpg',  
 'open_image/0005facd8dbaf39a.jpg',  
 'open_image/0005339c44e6071b.jpg',  
 'open_image/0003a523fa9b2a3f.jpg',  
 'open_image/0008758042ec63a7.jpg',  
 'open_image/000cb33296bfd7f1.jpg',  
 'open_image/0010ddb463f2b338.jpg',  
 'open_image/001610f264f720b9.jpg',  
 'open_image/00147d2574f2b03a.jpg',  
 'open_image/001cd7c247aaf66a.jpg',  
 'open_image/001ed3efa46d601f.jpg',  
 'open_image/001467b96c529315.jpg',  
 'open_image/001f5d17cac81d74.jpg',  
 'open_image/0022c8c9cc26399b.jpg',  
 'open_image/00261ba39f3222ac.jpg',  
 'open_image/00263c736152351c.jpg',  
 'open_image/00264c4be481ab21.jpg',  
 'open_image/0024fbbcec84383b.jpg',  
 'open_image/0024096b6bb04ccc.jpg',  
 'open_image/00221bd372b1d6ec.jpg',  
 'open_image/0021250a98755eaa.jpg',  
 'open_image/0020f0040e71e49f.jpg']
```

```
!pwd
/content/gdrive/MyDrive/yolov7
%%time
result = modelv7(list_img)
CPU times: user 51.1 s, sys: 4.84 s, total: 55.9 s
Wall time: 1min 3s

#Plotting the images output by YOL0v7
%matplotlib inline
start = time.time()
plt.figure(figsize=(10,10), dpi=200)
for i in range(len(list_img)):
    plt.subplot(8, 3, i + 1)
    result1=modelv7(list_img[i])
    plt.imshow(np.squeeze(result1.render()))
    plt.axis('off')
```



```

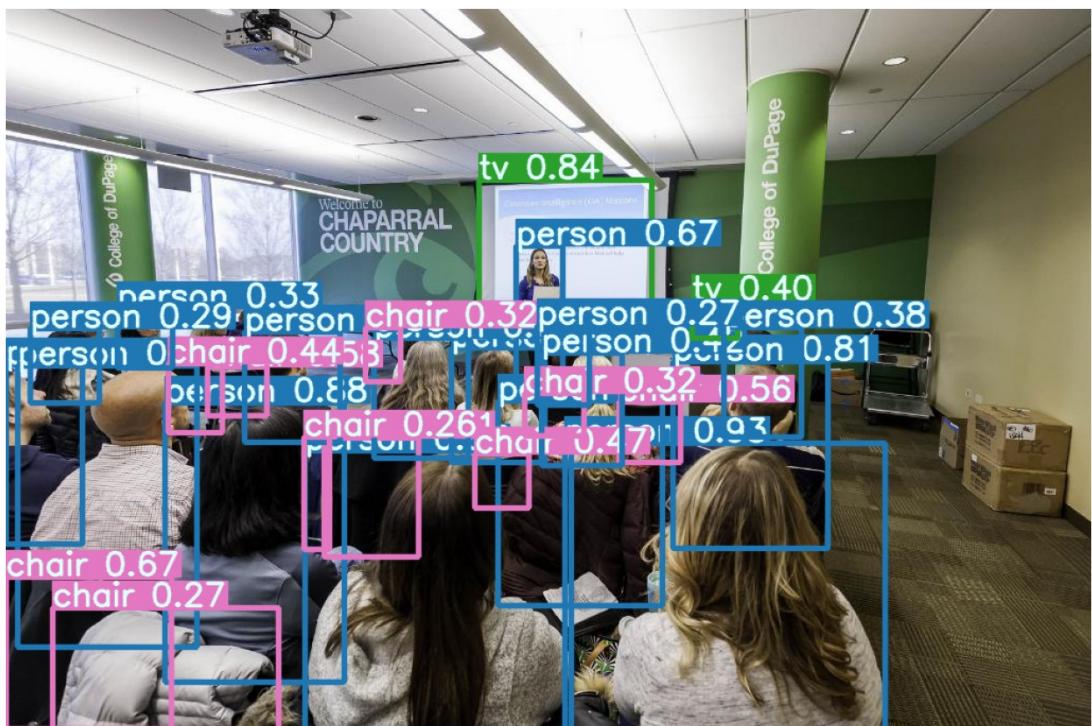
end = time.time()
end-start

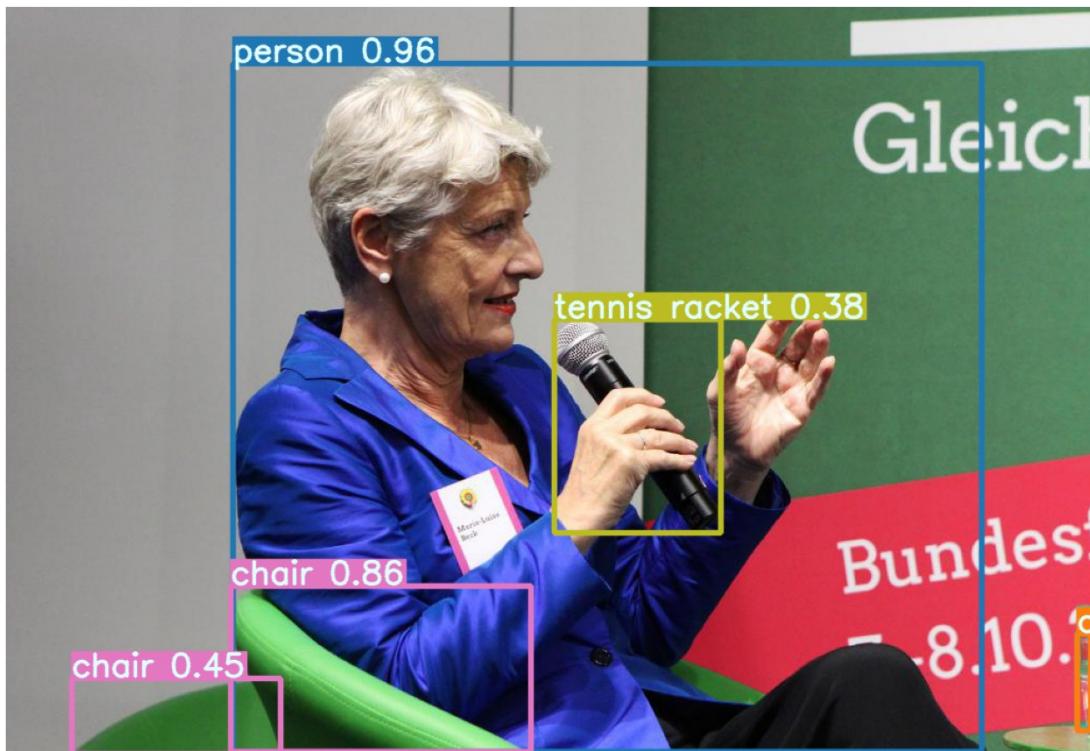
42.043193101882935

#Plotting the output of YOLOv5
%matplotlib inline
for i in range(len(list_img)):
    #plt.subplot(8, 3, i + 1)
    result1=modelv7(list_img[i])
    #result1=result[i]
    plt.figure(figsize=(8,8), dpi=200)
    plt.imshow(np.squeeze(result1.render()))

```

```
plt.axis('off')  
plt.show()
```



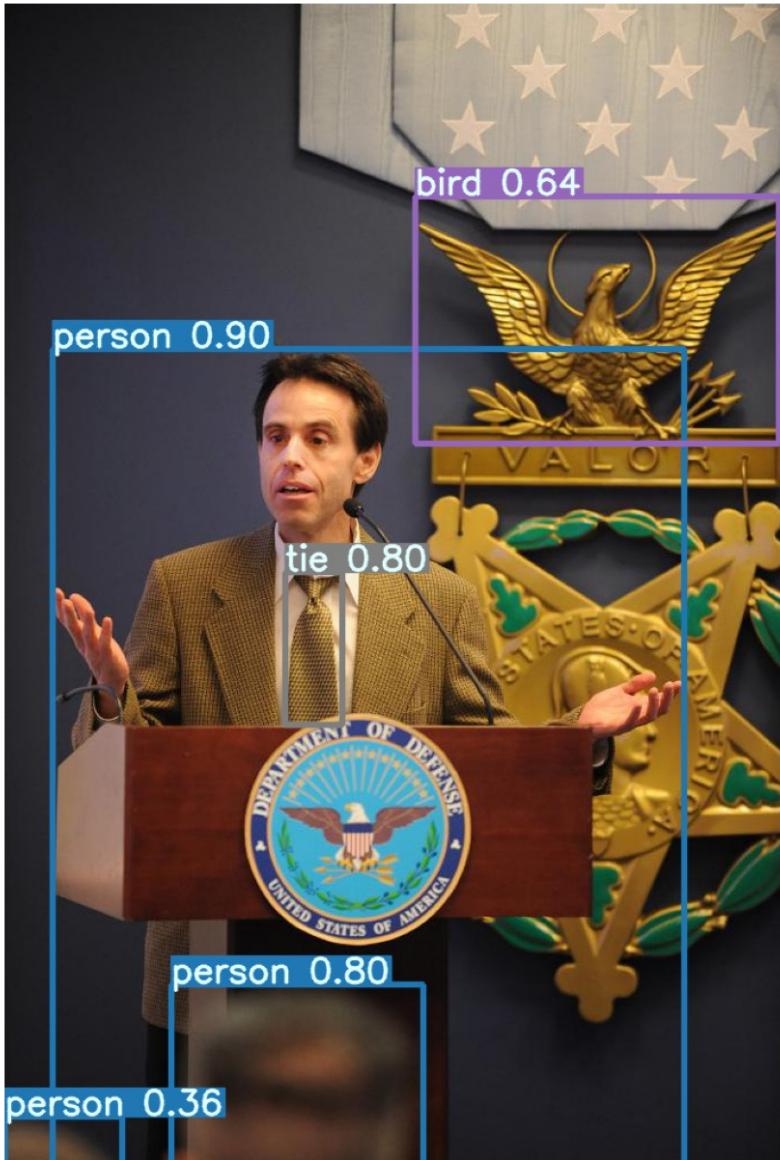


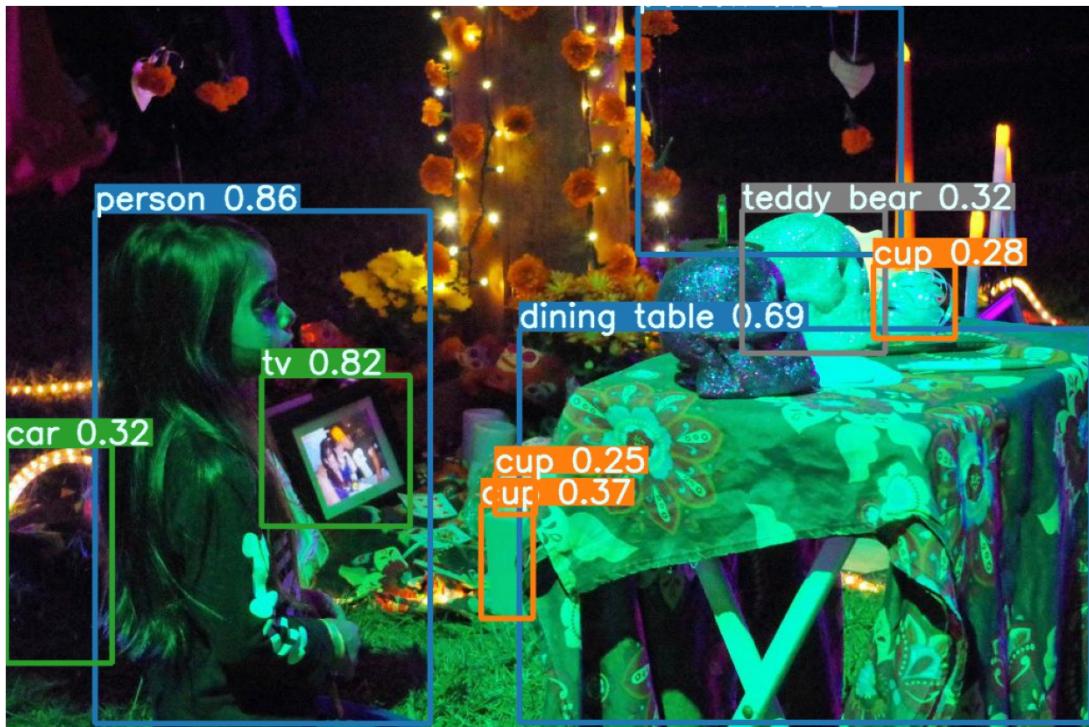


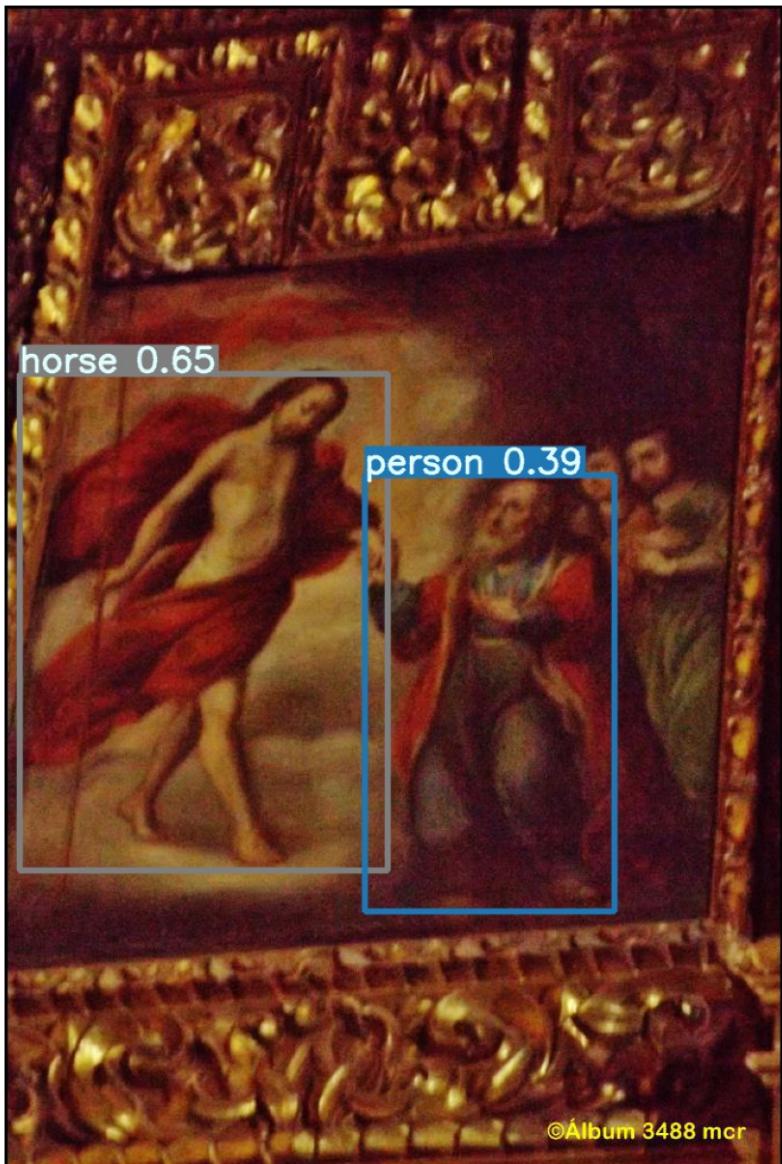








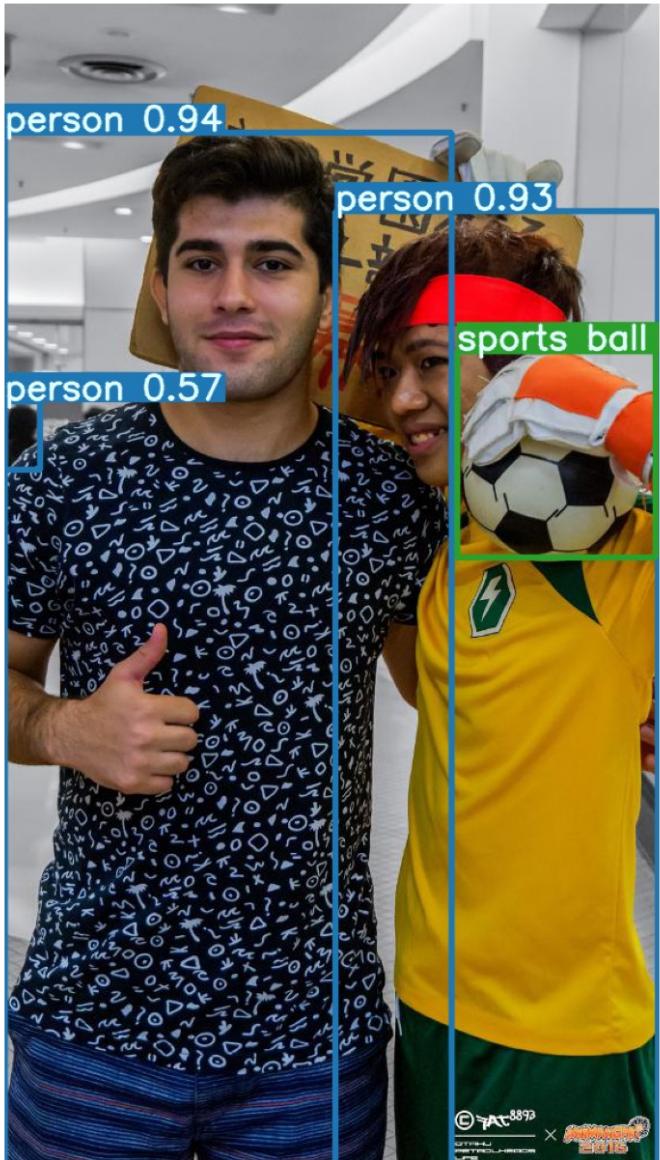


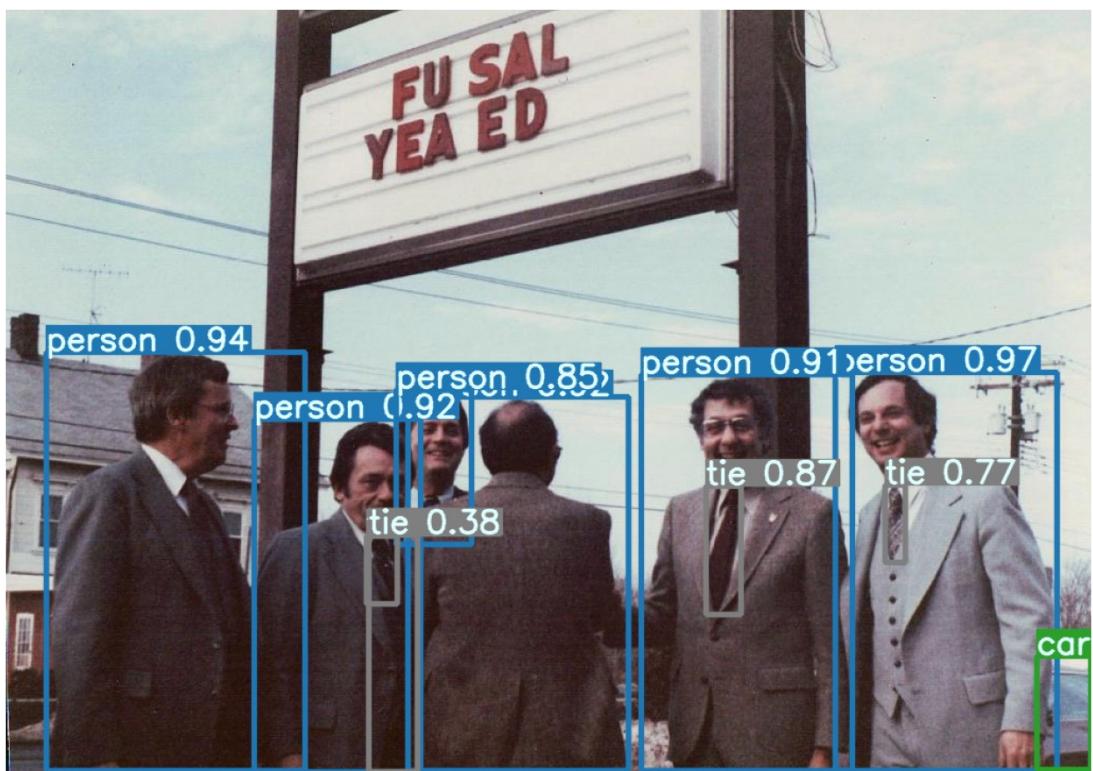
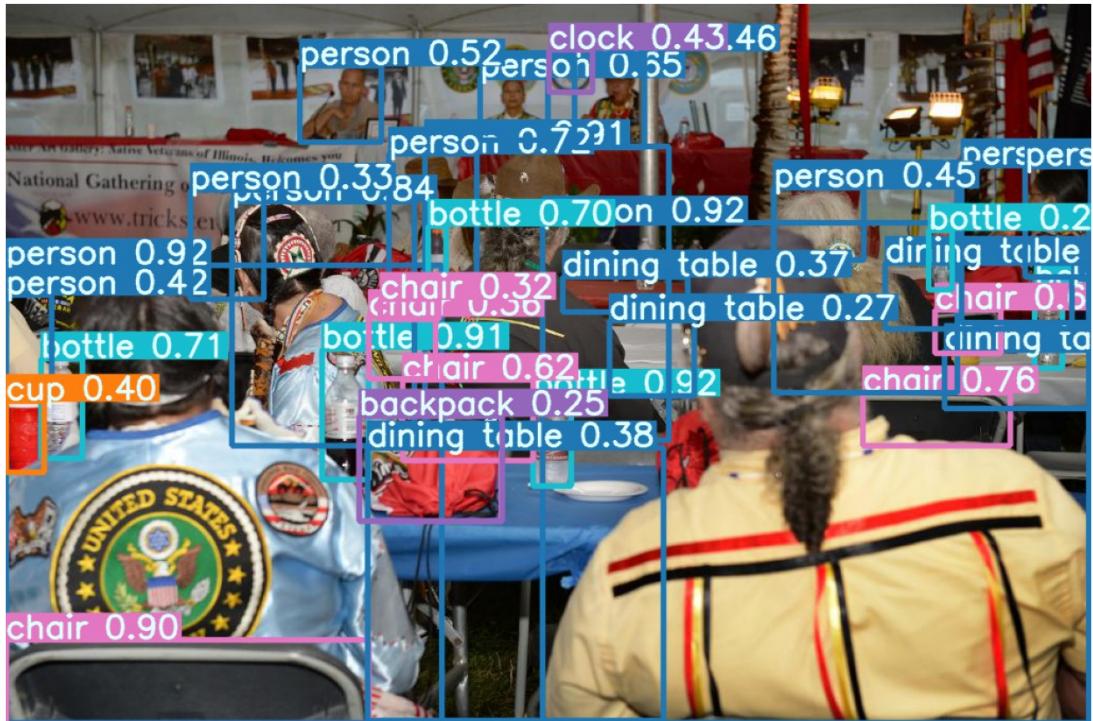


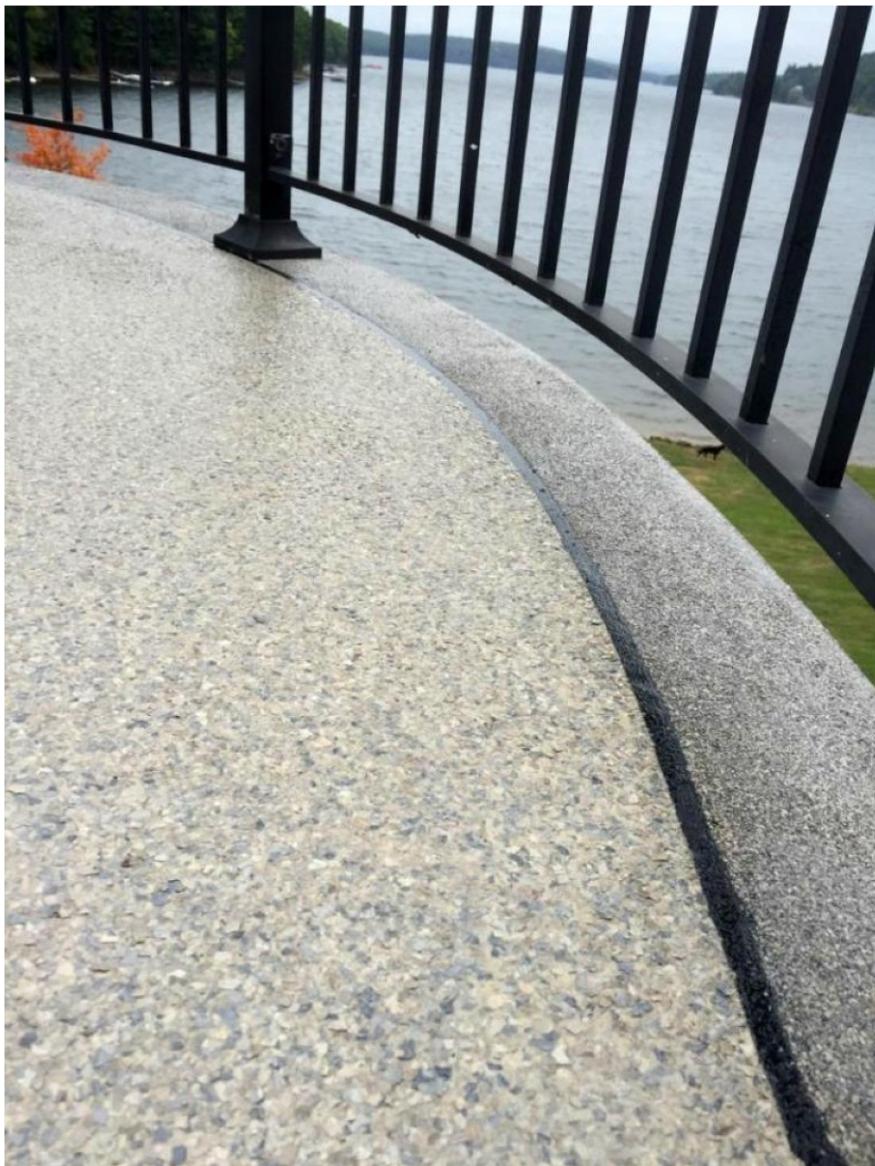




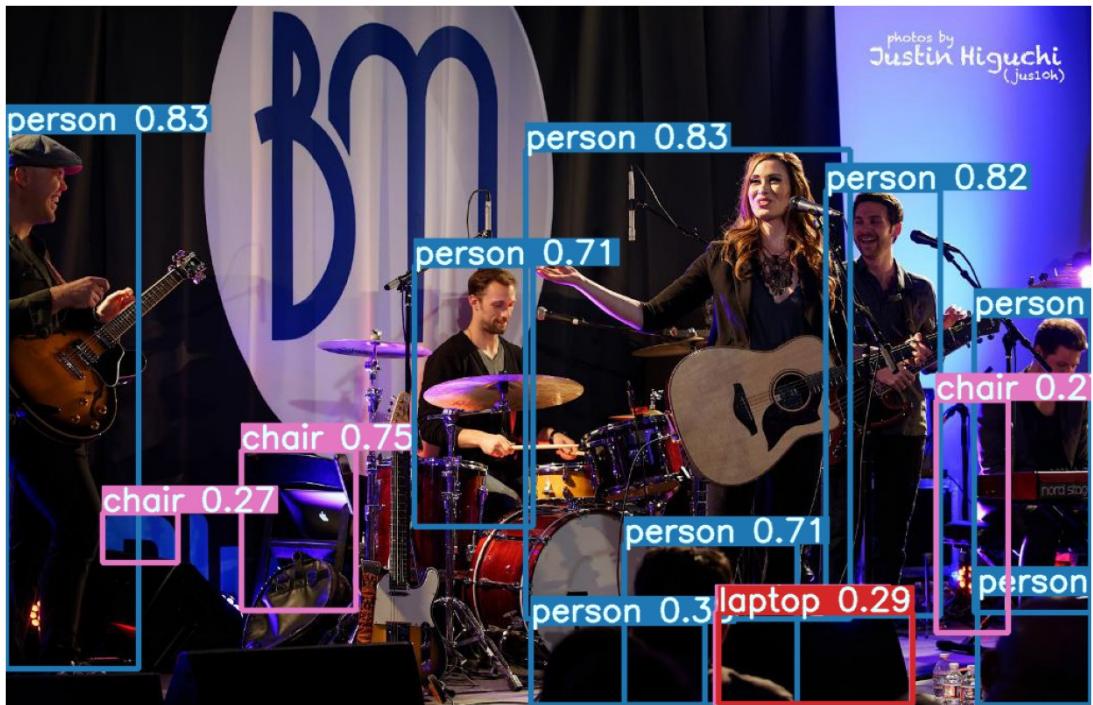
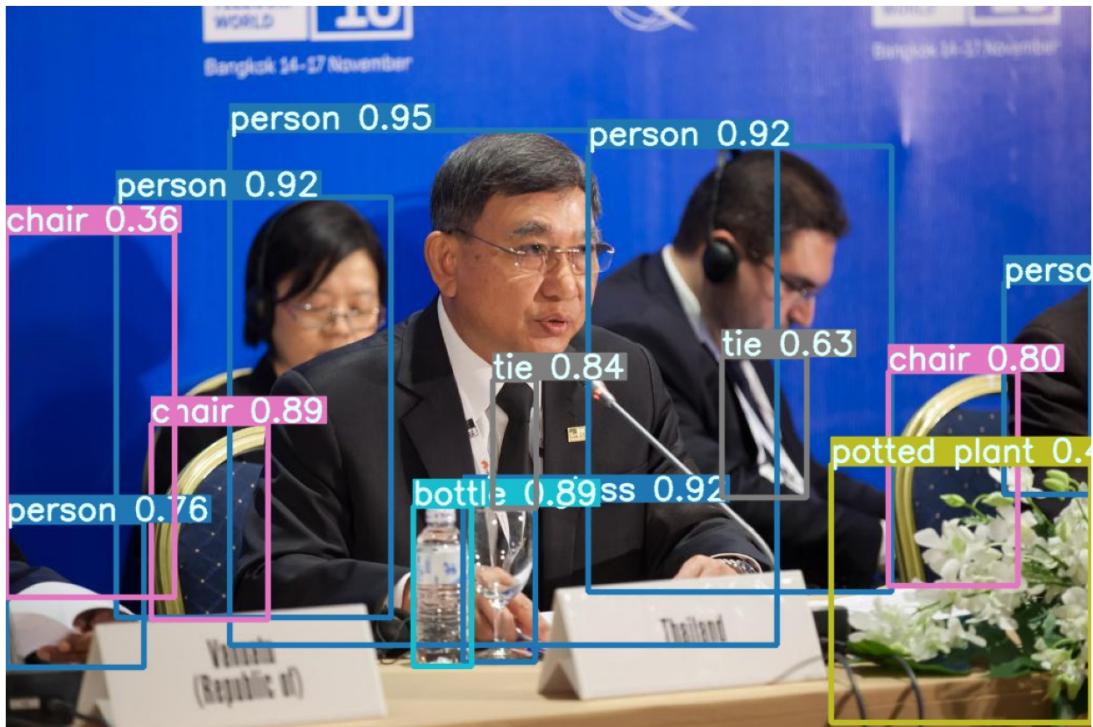












```
# mount Google Drive
from google.colab import drive
drive.mount('/content/gdrive')
%cd gdrive/MyDrive
```

```
Drive already mounted at /content/gdrive; to attempt to forcibly
remount, call drive.mount("/content/gdrive", force_remount=True).
[Errno 2] No such file or directory: 'gdrive/MyDrive'
/content/gdrive/MyDrive/yolov7

#loading the images

list_img2 = os.listdir("unsplash-images-collection")
list_img2 = list_img2[:50]
len(list_img2)

50

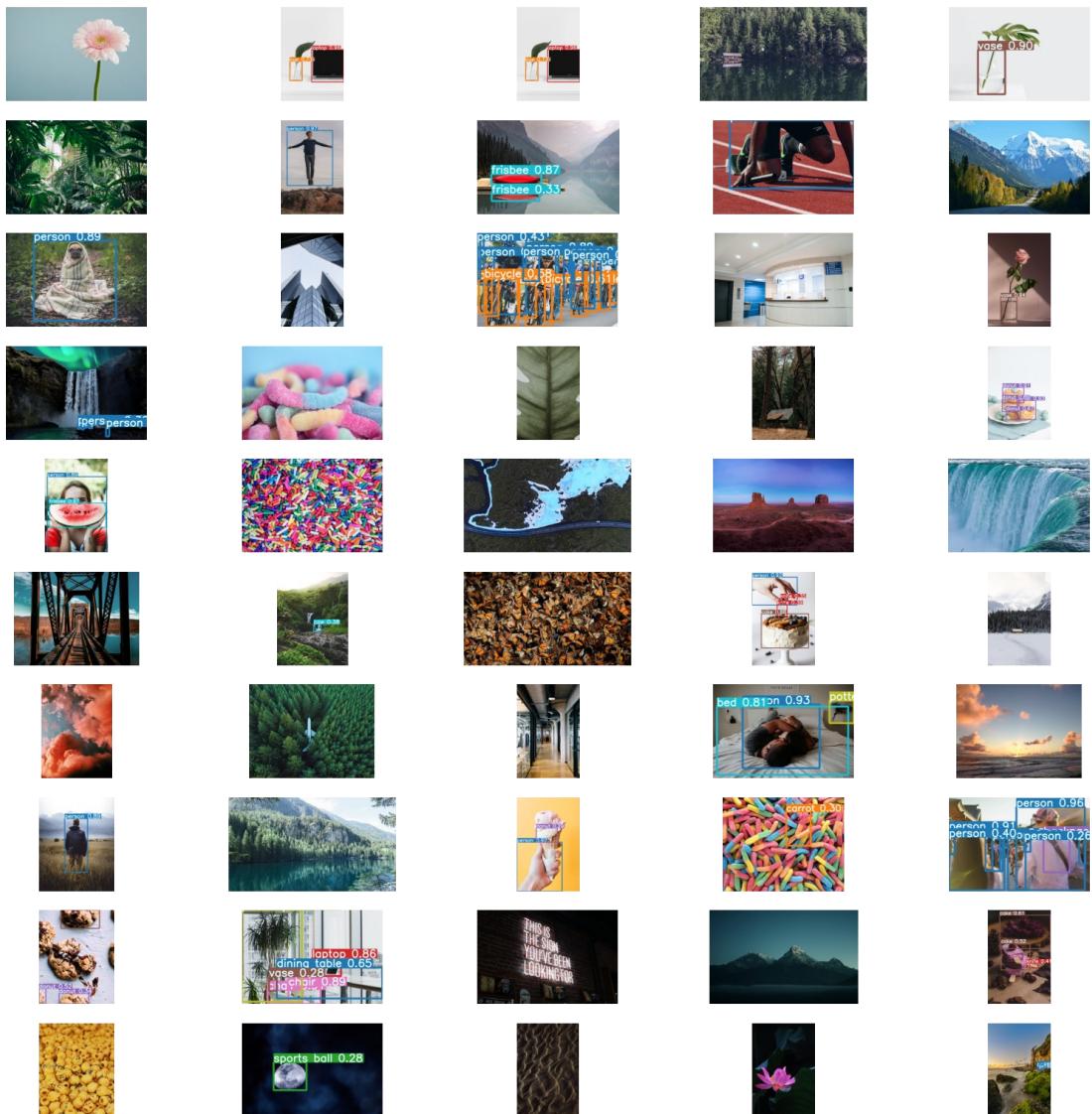
for i in range(len(list_img2)):
    list_img2[i]='unsplash-images-collection/'+ list_img2[i]

%%time

result = modelv7(list_img2)

CPU times: user 1min 46s, sys: 14.9 s, total: 2min 1s
Wall time: 2min 13s

#Plotting the output of YOLOv7
%matplotlib inline
plt.figure(figsize=(10,10), dpi=200)
for i in range(len(list_img2)):
    plt.subplot(10,5, i + 1)
    result1=modelv7(list_img2[i])
    #result1=result[i]
    plt.imshow(np.squeeze(result1.render()))
    plt.axis('off')
```



Dataset3 (60)

```
# mount Google Drive
from google.colab import drive
drive.mount('/content/gdrive')
%cd gdrive/MyDrive
```

```
Drive already mounted at /content/gdrive; to attempt to forcibly  
remount, call drive.mount("/content/gdrive", force_remount=True).  
/content/gdrive/MyDrive
```

#loading the images

```
list_img3 = os.listdir("images")  
len(list img3)
```

60

```
for i in range(len(list_img3)):
    list_img3[i]='images/'+ list_img3[i]

%%time
results = modelv7(list_img3)

#Plotting the output of YOLOv7
%matplotlib inline
plt.figure(figsize=(10,10), dpi=200)
for i in range(len(list_img3)):
    plt.subplot(10,5, i + 1)
    result1=modelv7(list_img3[i])
    #result1=result[i]
    plt.imshow(np.squeeze(result1.render()))
    plt.axis('off')
```