

```
# 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 the images

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

len(list_img)

24

#loading YOLOv5
!git clone https://github.com/ultralytics/yolov5
!cd yolov5
!pip install -r ./yolov5/requirements.txt
!cp yolov5/requirements.txt ./

#saving the model YOLOv5
modelv5 = torch.hub.load('ultralytics/yolov5', 'yolov5s')

/usr/local/lib/python3.8/dist-packages/torch/hub.py:267: UserWarning:
You are about to download and run code from an untrusted repository.
In a future release, this won't be allowed. To add the repository to
your trusted list, change the command to {calling_fn}(...,
trust_repo=False) and a command prompt will appear asking for an
explicit confirmation of trust, or load(..., trust_repo=True), which
will assume that the prompt is to be answered with 'yes'. You can also
use load(..., trust_repo='check') which will only prompt for
confirmation if the repo is not already trusted. This will eventually
be the default behaviour
    warnings.warn(
Downloading: "https://github.com/ultralytics/yolov5/zipball/master" to
/root/.cache/torch/hub/master.zip
YOLOv5 🚀 2023-1-24 Python-3.8.10 torch-1.13.1+cu116 CPU

Fusing layers...
```

```

YOLOv5s summary: 213 layers, 7225885 parameters, 0 gradients
Adding AutoShape...

for i in range(len(list_img)):
    list_img[i]='yolov7/open_image/'+ list_img[i]

%%time

result = modelv5(list_img)

CPU times: user 13.3 s, sys: 732 ms, total: 14.1 s
Wall time: 23.5 s

type(result)

models.common.Detections

result

YOLOv5 <class 'models.common.Detections'> instance
image 1/24: 683x1024 5 persons, 2 trucks, 2 handbags
image 2/24: 681x1024 16 persons, 3 chairs, 4 tvs
image 3/24: 682x1024 17 persons, 1 sports ball, 1 bowl, 2 laptops
image 4/24: 706x1024 1 person, 2 chairs
image 5/24: 670x1024 1 truck, 1 fire hydrant
image 6/24: 640x1024 (no detections)
image 7/24: 738x1024 (no detections)
image 8/24: 828x768 (no detections)
image 9/24: 682x1024 (no detections)
image 10/24: 1024x681 1 person, 1 tie
image 11/24: 682x1024 1 person, 1 cup, 1 dining table, 1 tv
image 12/24: 768x1015 2 persons, 1 bird
image 13/24: 1024x684 (no detections)
image 14/24: 576x1024 14 persons, 3 suitcases
image 15/24: 1024x431 1 sports ball
image 16/24: 768x1023 1 car
image 17/24: 1024x575 3 persons
image 18/24: 681x1024 10 persons, 1 handbag, 4 bottles, 1 cup, 3
chairs, 1 potted plant, 3 dining tables
image 19/24: 722x1024 6 persons, 3 ties
image 20/24: 1024x768 (no detections)
image 21/24: 682x1024 (no detections)
image 22/24: 682x1024 18 persons, 1 car
image 23/24: 682x1024 5 persons, 2 ties, 1 bottle, 2 wine glassss, 2
chairs, 1 potted plant
image 24/24: 660x1024 8 persons
Speed: 267.9ms pre-process, 707.7ms inference, 1.6ms NMS per image at
shape (24, 3, 640, 640)

#Plotting the output of YOLOv5
%matplotlib inline
plt.figure(figsize=(10,10), dpi=200)

```

```

for i in range(len(list_img)):
    plt.subplot(8, 3, i + 1)
    result1=modelv5(list_img[i])
    #result1=result[i]
    plt.imshow(np.squeeze(result1.render()))
    plt.axis('off')

```



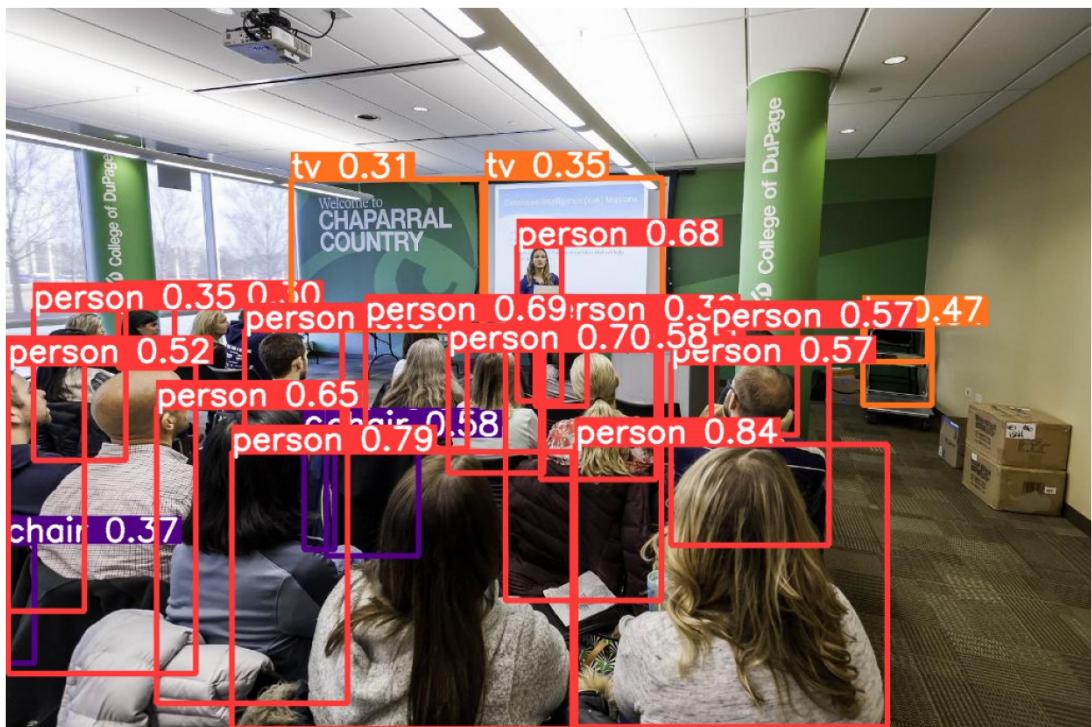
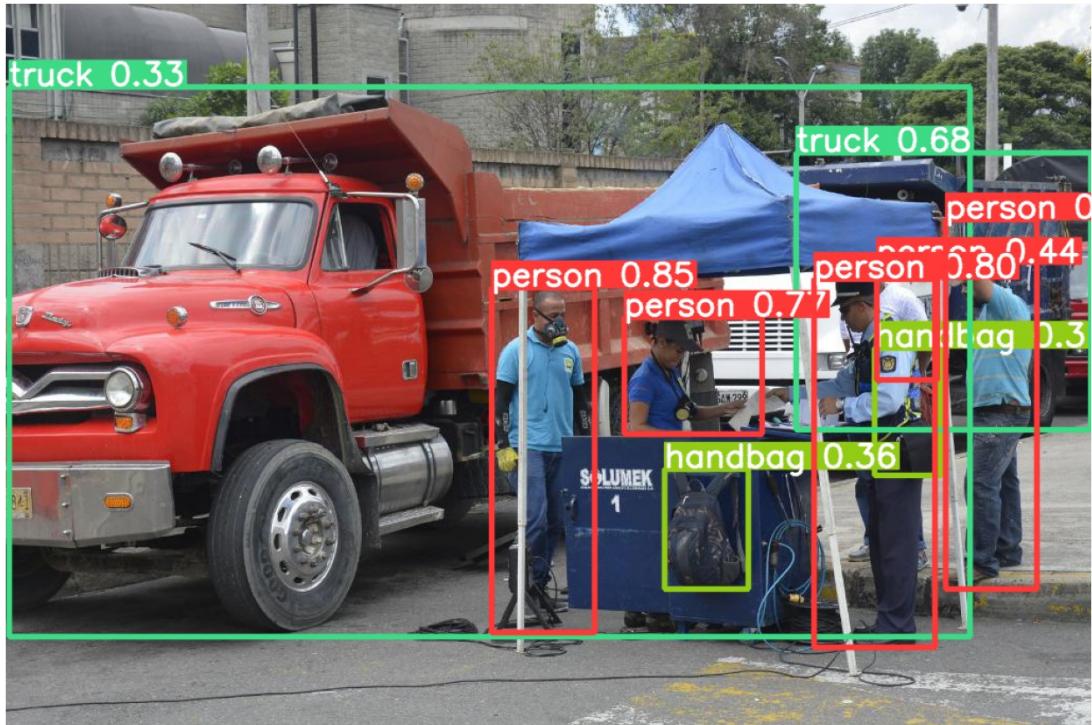
#Plotting the output of YOLOv5

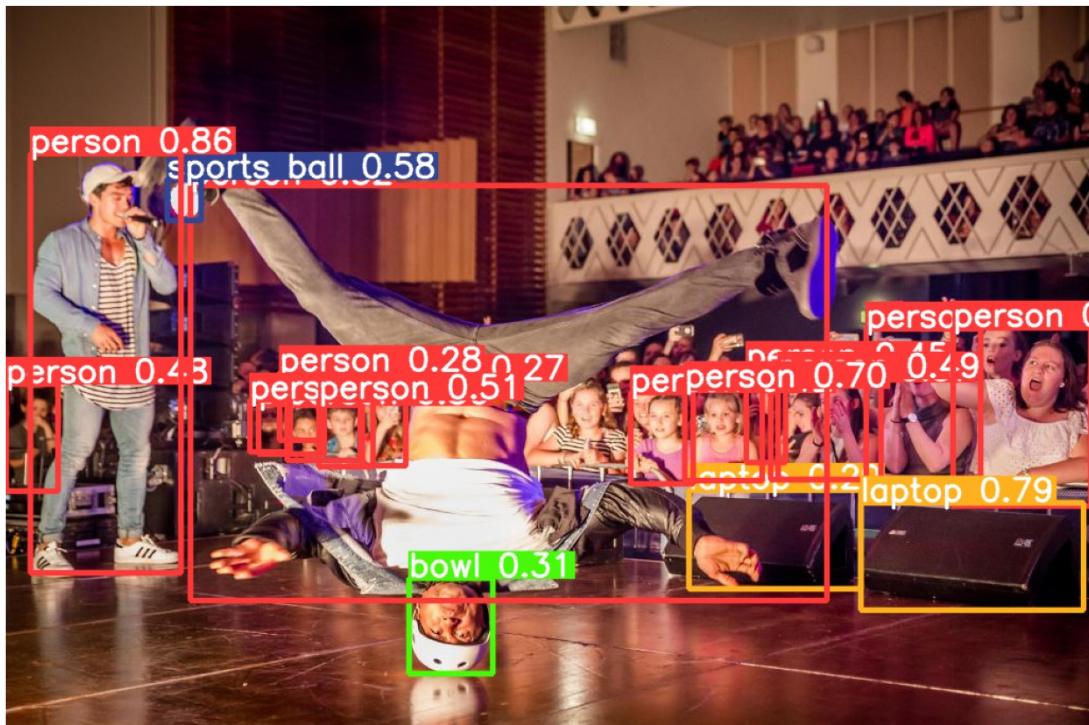
```

%matplotlib inline
for i in range(len(list_img)):
    #plt.subplot(8, 3, i + 1)
    result1=modelv5(list_img[i])
    #result1=result[i]

```

```
plt.figure(figsize=(8,8), dpi=200)
plt.imshow(np.squeeze(result1.render()))
plt.axis('off')
plt.show()
```



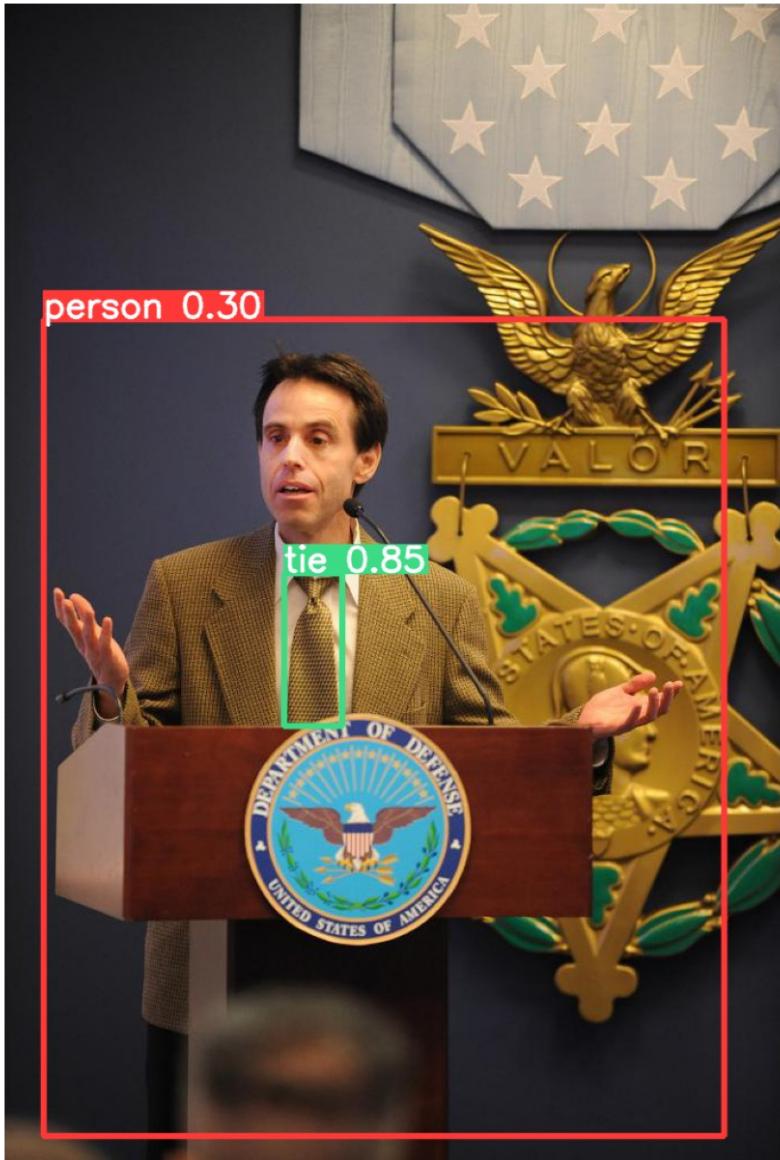




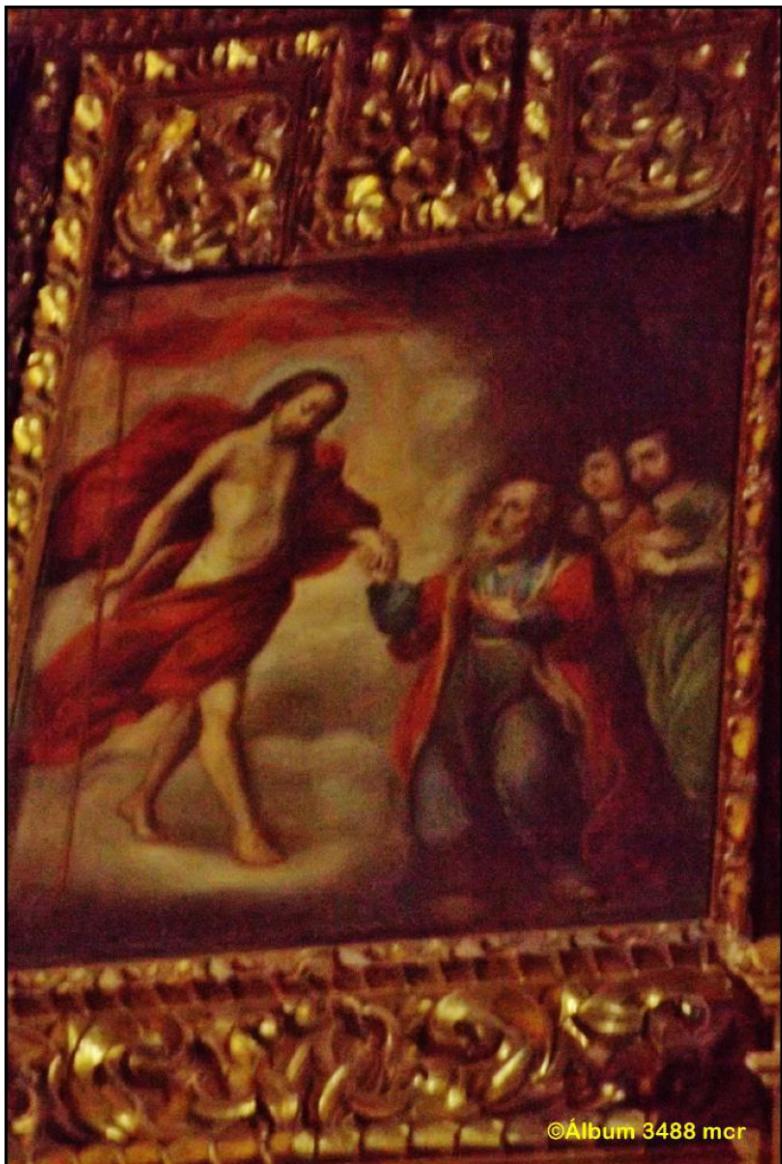




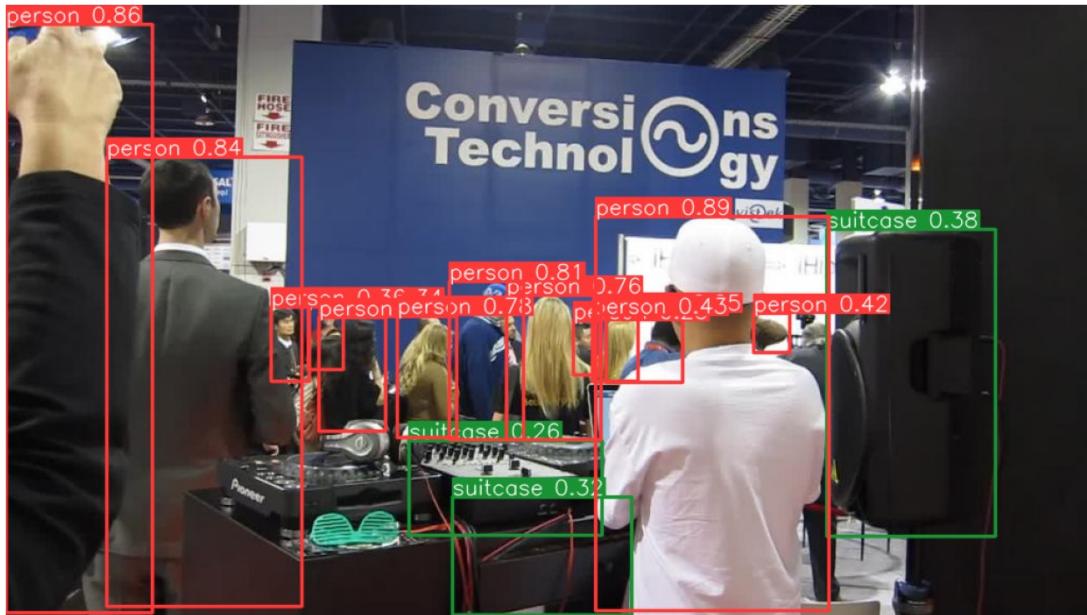




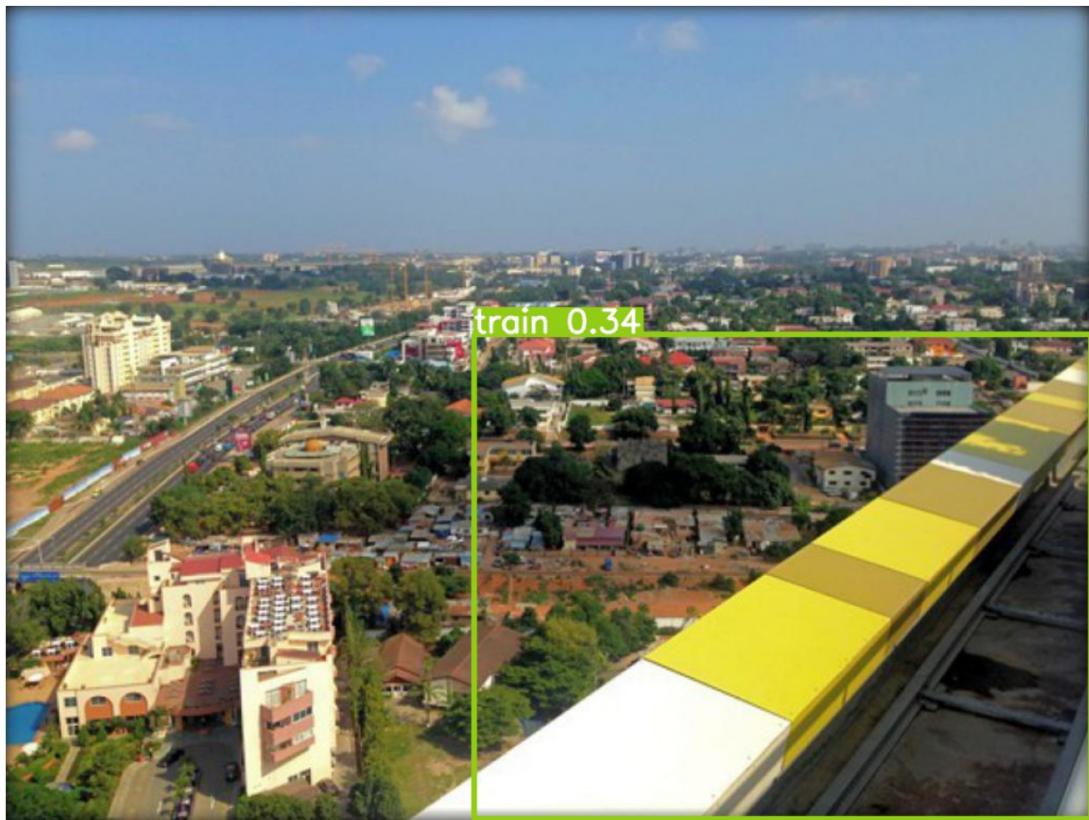


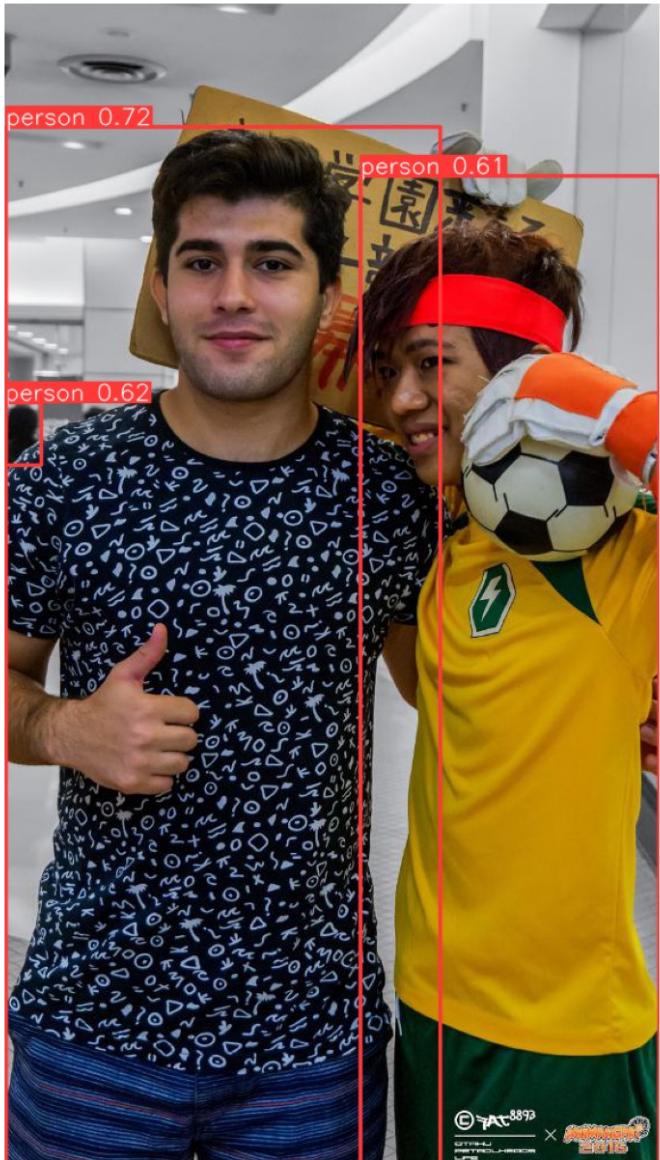


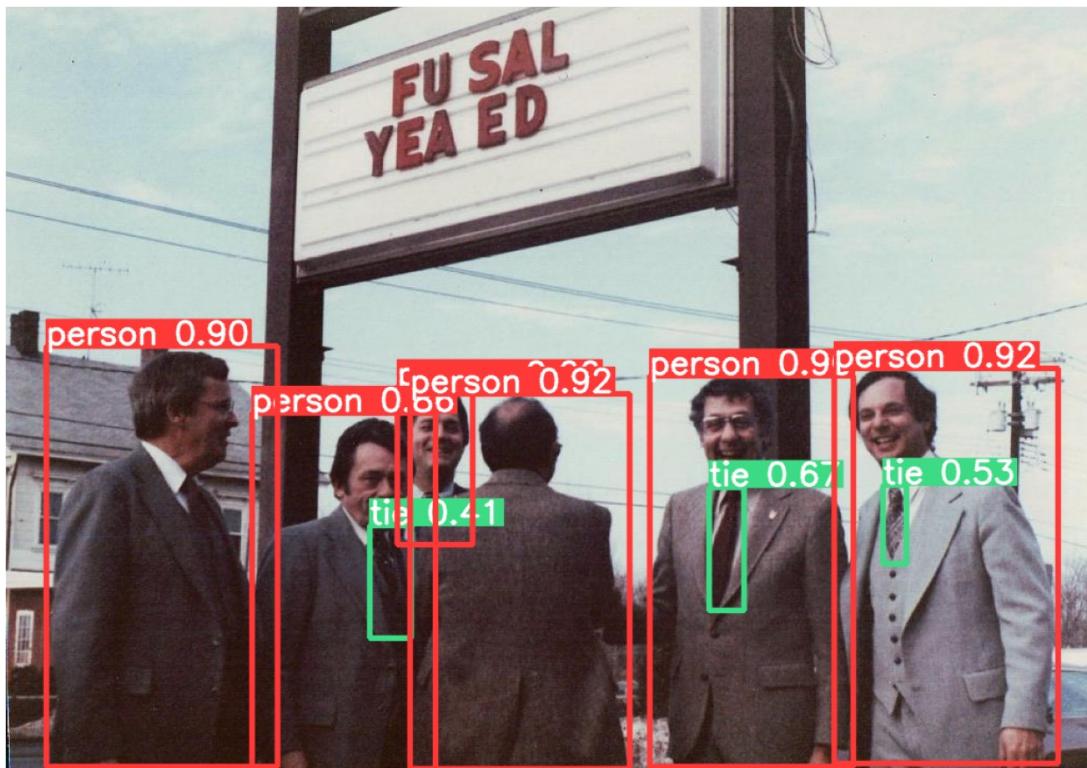
©Álbum 3488 mcr

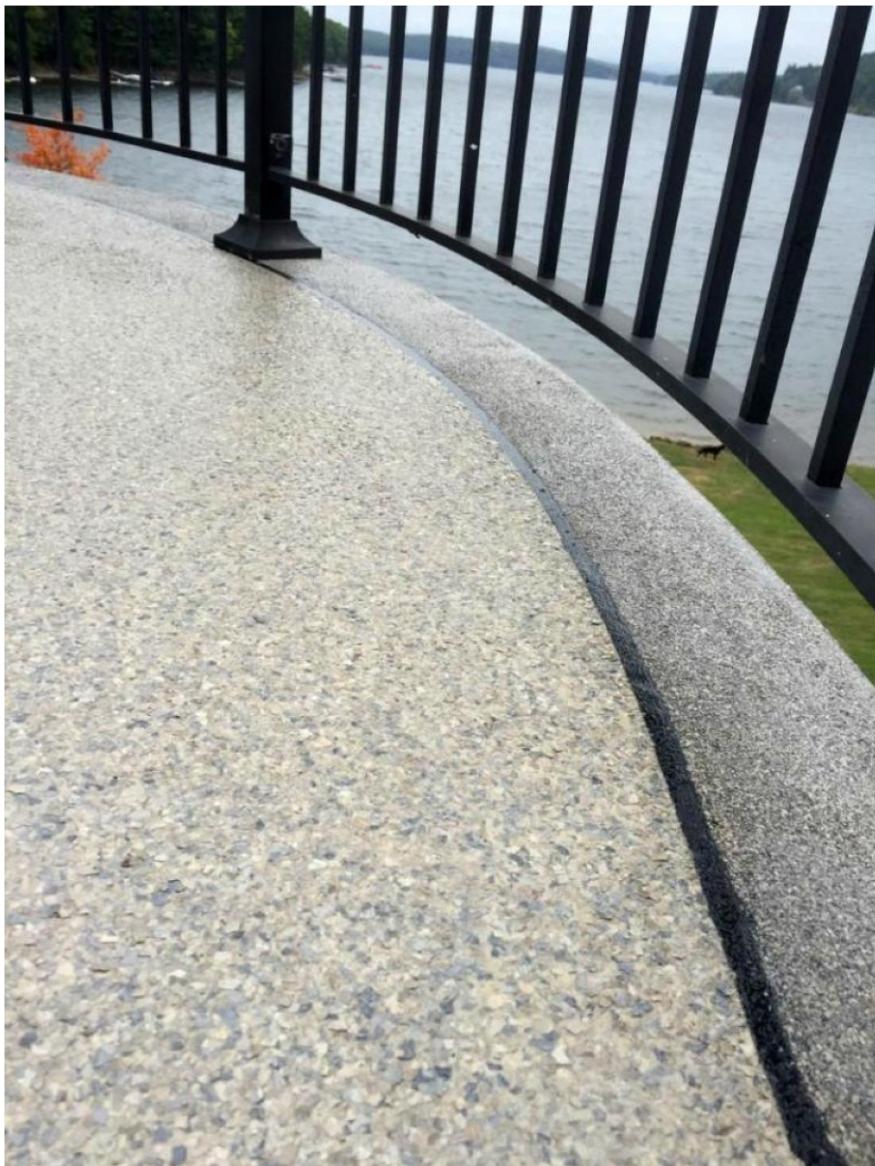


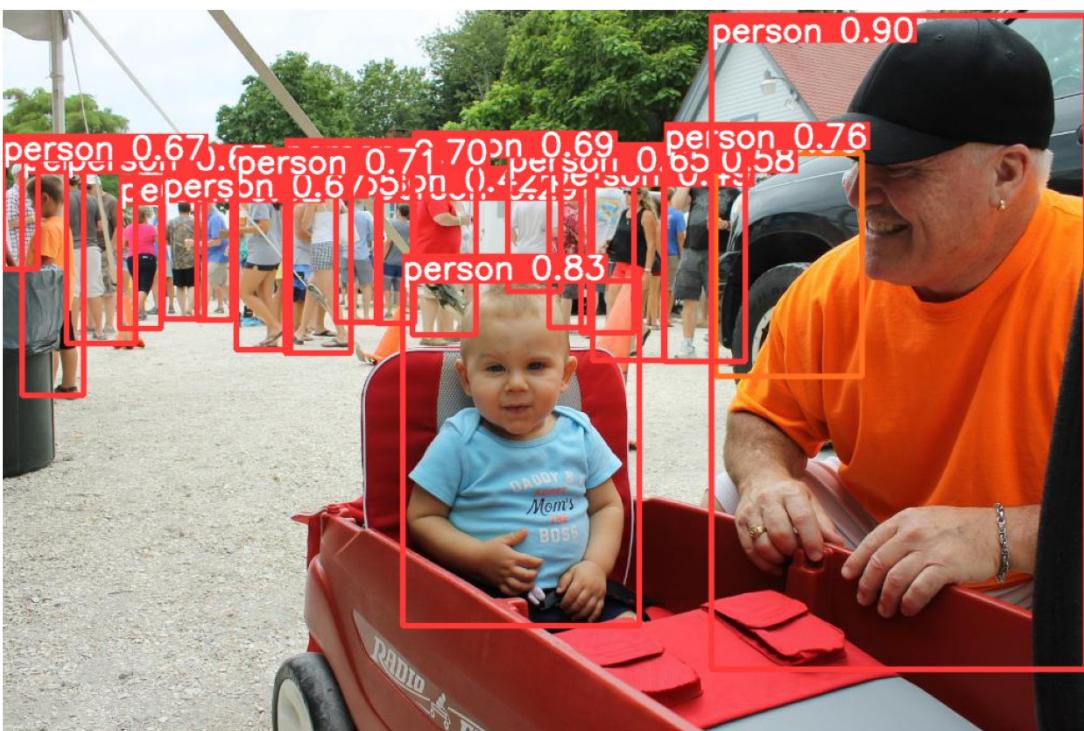


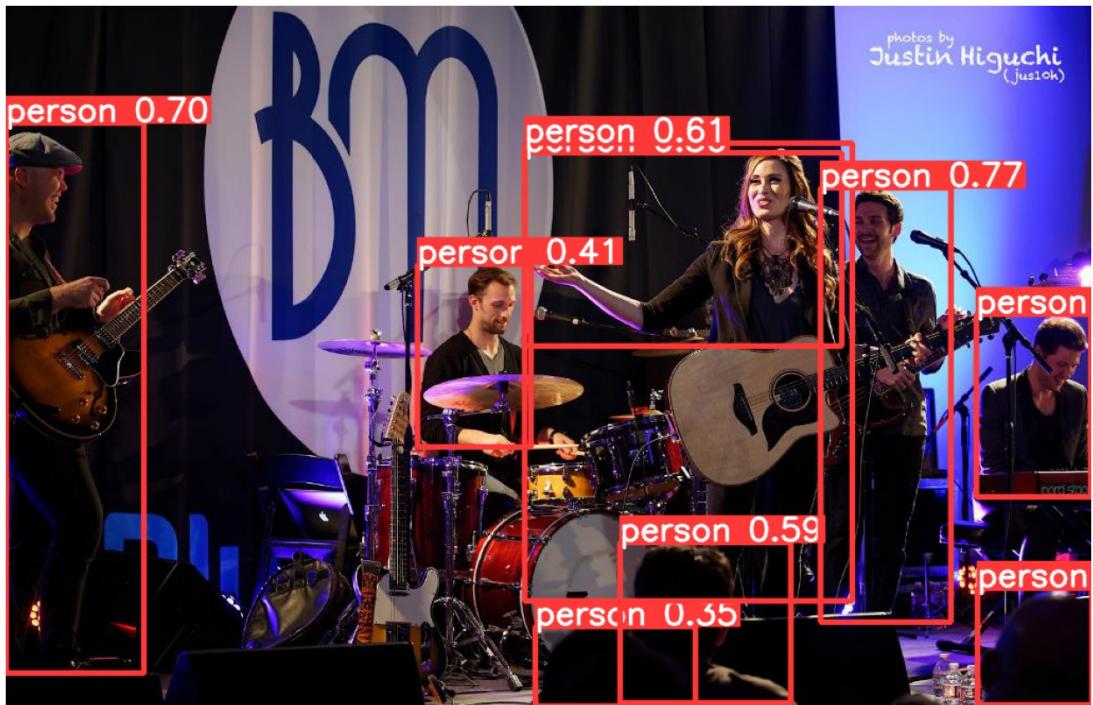
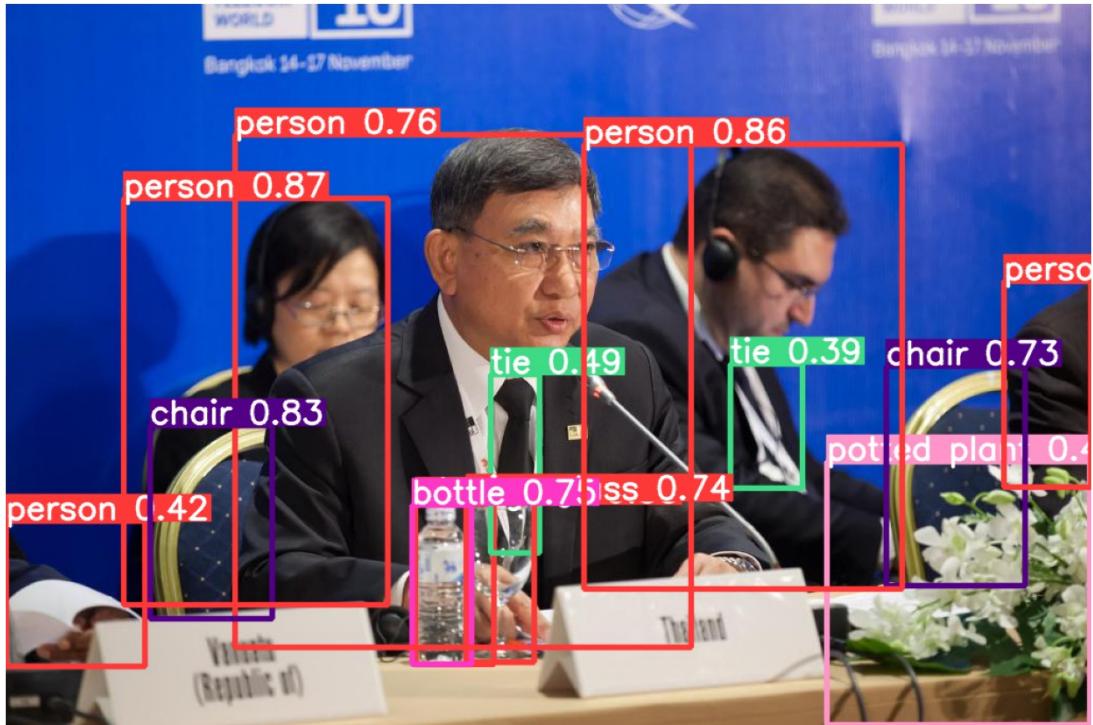












```
# mount Google Drive
from google.colab import drive
drive.mount('/content/gdrive')
%cd gdrive/MyDrive
```

```
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

#loading the images

list_img2 = os.listdir("yolov7/unsplash-images-collection")
list_img2 = list_img2[:50]
len(list_img2)

50

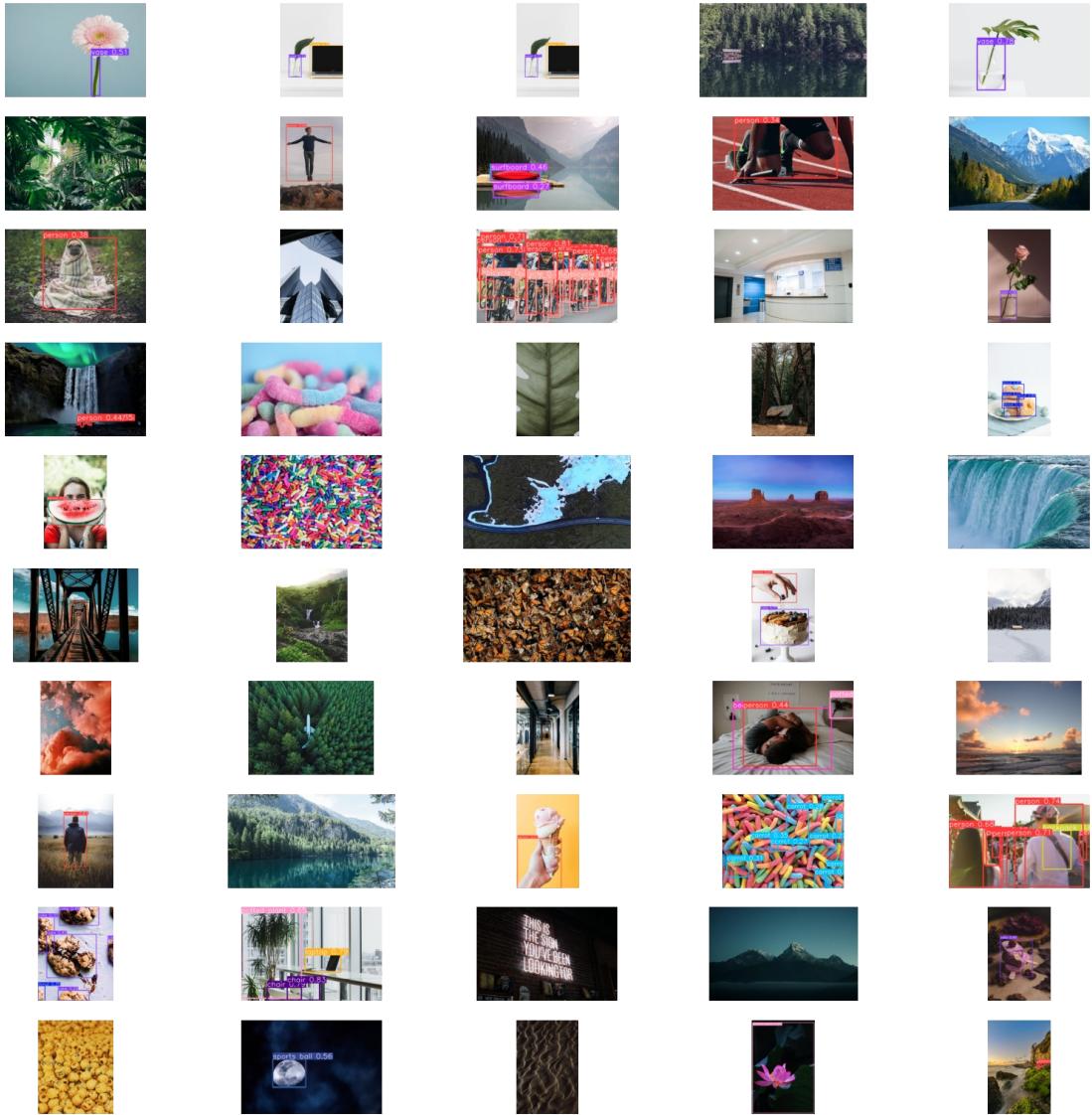
for i in range(len(list_img2)):
    list_img2[i]='yolov7/unsplash-images-collection/'+ list_img2[i]

%%time

result = modelv5(list_img2)

CPU times: user 21.3 s, sys: 2.44 s, total: 23.8 s
Wall time: 41.7 s

#Plotting the output of YOLOv5
%matplotlib inline
plt.figure(figsize=(10,10), dpi=200)
for i in range(len(list_img2)):
    plt.subplot(10,5, i + 1)
    result1=modelv5(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).
[Errno 2] No such file or directory: 'gdrive/MyDrive'
/content/gdrive/MyDrive

#loading the images

```

list_img3 = os.listdir("yolov7/images")
len(list_img3)

60

for i in range(len(list_img3)):
    list_img3[i]='yolov7/images/'+ list_img3[i]

%%time
results = modelv5(list_img3)

CPU times: user 21.2 s, sys: 2.1 s, total: 23.3 s
Wall time: 41.5 s

#Plotting the output of YOLOv5
%matplotlib inline
plt.figure(figsize=(10,10), dpi=200)
for i in range(len(list_img3)):
    plt.subplot(10,5, i + 1)
    result1=modelv5(list_img3[i])
    #result1=result[i]
    plt.imshow(np.squeeze(result1.render()))
    plt.axis('off')

-----
---->
ValueError                                Traceback (most recent call
last)
<ipython-input-35-61f0c91f61a4> in <module>
      3 plt.figure(figsize=(10,10), dpi=200)
      4 for i in range(len(list_img3)):
----> 5     plt.subplot(10,5, i + 1)
      6     result1=modelv5(list_img3[i])
      7     #result1=result[i]

/usr/local/lib/python3.8/dist-packages/matplotlib/pyplot.py in
subplot(*args, **kwargs)
    1028
    1029      fig = gcf()
-> 1030      a = fig.add_subplot(*args, **kwargs)
    1031      bbox = a.bbox
    1032      byebye = []

/usr/local/lib/python3.8/dist-packages/matplotlib/figure.py in
add_subplot(self, *args, **kwargs)
    1417          self._axstack.remove(ax)
    1418
-> 1419          a = subplot_class_factory(projection_class)(self,
*args, **kwargs)
    1420
    1421      return self._add_axes_internal(key, a)

```

```

/usr/local/lib/python3.8/dist-packages/matplotlib/axes/_subplots.py in
__init__(self, fig, *args, **kwargs)
    63         else:
    64             if num < 1 or num > rows*cols:
--> 65                 raise ValueError(
    66                     f"num must be 1 <= num <= {rows*cols},"
not {num}")
    67             self._subplotspec = GridSpec(

```

ValueError: num must be 1 <= num <= 50, not 51

