yolo

September 11, 2024

[1]: `!pip install ultralytics`

```
Collecting ultralytics
  Downloading ultralytics-8.2.92-py3-none-any.whl.metadata (41 kB)
                          41.9/41.9 kB
1.4 MB/s eta 0:00:00
Requirement already satisfied: numpy<2.0.0,>=1.23.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (1.26.4)
Requirement already satisfied: matplotlib>=3.3.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (3.7.1)
Requirement already satisfied: opencv-python>=4.6.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (4.10.0.84)
Requirement already satisfied: pillow>=7.1.2 in /usr/local/lib/python3.10/dist-
packages (from ultralytics) (9.4.0)
Requirement already satisfied: pyyaml>=5.3.1 in /usr/local/lib/python3.10/dist-
packages (from ultralytics) (6.0.2)
Requirement already satisfied: requests>=2.23.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (2.32.3)
Requirement already satisfied: scipy>=1.4.1 in /usr/local/lib/python3.10/dist-
packages (from ultralytics) (1.13.1)
Requirement already satisfied: torch>=1.8.0 in /usr/local/lib/python3.10/dist-
packages (from ultralytics) (2.4.0+cu121)
Requirement already satisfied: torchvision>=0.9.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (0.19.0+cu121)
Requirement already satisfied: tqdm>=4.64.0 in /usr/local/lib/python3.10/dist-
packages (from ultralytics) (4.66.5)
Requirement already satisfied: psutil in /usr/local/lib/python3.10/dist-packages
(from ultralytics) (5.9.5)
Requirement already satisfied: py-cpuinfo in /usr/local/lib/python3.10/dist-
packages (from ultralytics) (9.0.0)
Requirement already satisfied: pandas>=1.1.4 in /usr/local/lib/python3.10/dist-
packages (from ultralytics) (2.1.4)
Requirement already satisfied: seaborn>=0.11.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (0.13.1)
Collecting ultralytics-thop>=2.0.0 (from ultralytics)
  Downloading ultralytics_thop-2.0.6-py3-none-any.whl.metadata (9.1 kB)
Requirement already satisfied: contourpy>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0->ultralytics)
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(1.3.0)
Requirement already satisfied: cycler>=0.10 in /usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0->ultralytics) (0.12.1)
Requirement already satisfied: fonttools>=4.22.0 in /usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0->ultralytics) (4.53.1)
Requirement already satisfied: kiwisolver>=1.0.1 in /usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0->ultralytics) (1.4.7)
Requirement already satisfied: packaging>=20.0 in /usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0->ultralytics) (24.1)
Requirement already satisfied: pyparsing>=2.3.1 in /usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0->ultralytics) (3.1.4)
Requirement already satisfied: python-dateutil>=2.7 in /usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0->ultralytics) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-packages (from pandas>=1.1.4->ultralytics) (2024.1)
Requirement already satisfied: tzdata>=2022.1 in /usr/local/lib/python3.10/dist-packages (from pandas>=1.1.4->ultralytics) (2024.1)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.10/dist-packages (from requests>=2.23.0->ultralytics) (3.3.2)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-packages (from requests>=2.23.0->ultralytics) (3.8)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.10/dist-packages (from requests>=2.23.0->ultralytics) (2.0.7)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.10/dist-packages (from requests>=2.23.0->ultralytics) (2024.8.30)
Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-packages (from torch>=1.8.0->ultralytics) (3.16.0)
Requirement already satisfied: typing-extensions>=4.8.0 in /usr/local/lib/python3.10/dist-packages (from torch>=1.8.0->ultralytics) (4.12.2)
Requirement already satisfied: sympy in /usr/local/lib/python3.10/dist-packages (from torch>=1.8.0->ultralytics) (1.13.2)
Requirement already satisfied: networkx in /usr/local/lib/python3.10/dist-packages (from torch>=1.8.0->ultralytics) (3.3)
Requirement already satisfied: jinja2 in /usr/local/lib/python3.10/dist-packages (from torch>=1.8.0->ultralytics) (3.1.4)
Requirement already satisfied: fsspec in /usr/local/lib/python3.10/dist-packages (from torch>=1.8.0->ultralytics) (2024.6.1)
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-packages (from python-dateutil>=2.7->matplotlib>=3.3.0->ultralytics) (1.16.0)

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Requirement already satisfied: MarkupSafe>=2.0 in
/usr/local/lib/python3.10/dist-packages (from jinja2->torch>=1.8.0->ultralytics)
(2.1.5)
Requirement already satisfied: mpmath<1.4,>=1.1.0 in
/usr/local/lib/python3.10/dist-packages (from sympy->torch>=1.8.0->ultralytics)
(1.3.0)
Downloading ultralytics-8.2.92-py3-none-any.whl (871 kB)
                        871.9/871.9 kB
6.3 MB/s eta 0:00:00
Downloading ultralytics_thop-2.0.6-py3-none-any.whl (26 kB)
Installing collected packages: ultralytics-thop, ultralytics
Successfully installed ultralytics-8.2.92 ultralytics-thop-2.0.6
```

[2]: `!yolo detect predict source="pose.jpg"`

```
Downloading
https://github.com/ultralytics/assets/releases/download/v8.2.0/yolov8n.pt to
'yolov8n.pt'…
100% 6.25M/6.25M [00:00<00:00, 98.9MB/s]
Ultralytics YOLOv8.2.92  Python-3.10.12 torch-2.4.0+cu121 CPU (Intel Xeon
2.20GHz)
YOLOv8n summary (fused): 168 layers, 3,151,904 parameters, 0 gradients, 8.7
GFLOPs

image 1/1 /content/pose.jpg: 320x640 6 persons, 1 chair, 345.6ms
Speed: 13.7ms preprocess, 345.6ms inference, 32.3ms postprocess per image at
shape (1, 3, 320, 640)
Results saved to runs/detect/predict
  Learn more at https://docs.ultralytics.com/modes/predict
```

[3]:
```python
import matplotlib.pyplot as plt
import matplotlib.image as mpimg

img = mpimg.imread('pose.jpg') #Replace "image.jpg" with the path of your image
plt.imshow(img)
plt.axis('off')
plt.show()
```

```
[4]:  import matplotlib.pyplot as plt
      import matplotlib.image as mpimg

      img = mpimg.imread('/content/runs/detect/predict/pose.jpg') #Replace "image.
       ↪jpg" with the path of your image
      plt.imshow(img)
      plt.axis('off')
      plt.show()
```