

```
In [1]: !pip install ultralytics
```

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Requirement already satisfied: ultralytics in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (8.3.56)
Requirement already satisfied: numpy>=1.23.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (1.26.4)
Requirement already satisfied: matplotlib>=3.3.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (3.10.0)
Requirement already satisfied: opencv-python>=4.6.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (4.10.0.84)
Requirement already satisfied: pillow>=7.1.2 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (11.0.0)
Requirement already satisfied: pyyaml>=5.3.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (6.0.2)
Requirement already satisfied: requests>=2.23.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (2.32.3)
Requirement already satisfied: scipy>=1.4.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (1.14.1)
Requirement already satisfied: torch>=1.8.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (2.5.1)
Requirement already satisfied: torchvision>=0.9.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (0.20.1)
Requirement already satisfied: tqdm>=4.64.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (4.67.1)
Requirement already satisfied: psutil in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (6.1.1)
Requirement already satisfied: py-cpuinfo in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (9.0.0)
Requirement already satisfied: pandas>=1.1.4 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (2.2.3)
Requirement already satisfied: seaborn>=0.11.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (0.13.2)
Requirement already satisfied: ultralytics-thop>=2.0.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (2.0.13)
Requirement already satisfied: contourpy>=1.0.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (1.3.1)
Requirement already satisfied: cycler>=0.10 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (0.12.1)
Requirement already satisfied: fonttools>=4.22.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (4.55.3)
Requirement already satisfied: kiwisolver>=1.3.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (1.4.8)
Requirement already satisfied: packaging>=20.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (23.2)
Requirement already satisfied: pyparsing>=2.3.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (3.2.0)
Requirement already satisfied: python-dateutil>=2.7 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (2.9.0.post0)
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Requirement already satisfied: pytz>=2020.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from pandas>=1.1.4->ultralytics) (2024.2)
Requirement already satisfied: tzdata>=2022.7 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from pandas>=1.1.4->ultralytics) (2024.2)
Requirement already satisfied: charset-normalizer<4,>=2 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from requests>=2.23.0->ultralytics) (3.4.1)
Requirement already satisfied: idna<4,>=2.5 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from requests>=2.23.0->ultralytics) (2.10)
Requirement already satisfied: urllib3<3,>=1.21.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from requests>=2.23.0->ultralytics) (2.3.0)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from requests>=2.23.0->ultralytics) (2024.12.14)
Requirement already satisfied: filelock in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torch>=1.8.0->ultralytics) (3.16.1)
Requirement already satisfied: typing-extensions>=4.8.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torch>=1.8.0->ultralytics) (4.12.2)
Requirement already satisfied: networkx in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torch>=1.8.0->ultralytics) (3.4.2)
Requirement already satisfied: jinja2 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torch>=1.8.0->ultralytics) (3.1.5)
Requirement already satisfied: fsspec in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torch>=1.8.0->ultralytics) (2024.12.0)
Requirement already satisfied: sympy==1.13.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torch>=1.8.0->ultralytics) (1.13.1)
Requirement already satisfied: mpmath<1.4,>=1.1.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from sympy==1.13.1->torch>=1.8.0->ultralytics) (1.3.0)
Requirement already satisfied: colorama in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tqdm>=4.64.0->ultralytics) (0.4.6)
Requirement already satisfied: six>=1.5 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from python-dateutil>=2.7->matplotlib>=3.3.0->ultralytics) (1.17.0)
Requirement already satisfied: MarkupSafe>=2.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from jinja2->torch>=1.8.0->ultralytics) (3.0.2)
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The system cannot find the path specified.

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[notice] A new release of pip is available: 24.3.1 -> 25.0.1
[notice] To update, run: python.exe -m pip install --upgrade pip
```

In [5]: pip install tensorflow

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Requirement already satisfied: tensorflow in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (2.18.0)
Requirement already satisfied: tensorflow-intel==2.18.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow) (2.18.0)
Requirement already satisfied: absl-py>=1.0.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (2.1.0)
Requirement already satisfied: astunparse>=1.6.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (1.6.3)
Requirement already satisfied: flatbuffers>=24.3.25 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (24.12.23)
Requirement already satisfied: gast!=0.5.0,!0.5.1,!0.5.2,>=0.2.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (0.4.0)
Requirement already satisfied: google-pasta>=0.1.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (0.2.0)
Requirement already satisfied: libclang>=13.0.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (18.1.1)
Requirement already satisfied: opt-einsum>=2.3.2 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (3.4.0)
Requirement already satisfied: packaging in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (23.2)
Requirement already satisfied: protobuf!=4.21.0,!4.21.1,!4.21.2,!4.21.3,!4.21.4,!4.21.5,<6.0.0dev,>=3.20.3 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (4.2.5.5)
Requirement already satisfied: requests<3,>=2.21.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (2.32.3)
Requirement already satisfied: setuptools in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (75.6.0)
Requirement already satisfied: six>=1.12.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (1.17.0)
Requirement already satisfied: termcolor>=1.1.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (2.5.0)
Requirement already satisfied: typing-extensions>=3.6.6 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (4.12.2)
Requirement already satisfied: wrapt>=1.11.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (1.14.1)
Requirement already satisfied: grpcio<2.0,>=1.24.3 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (1.68.1)
```

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Collecting tensorboard<2.19,>=2.18 (from tensorflow-intel==2.18.0->tensorflow)
  Using cached tensorboard-2.18.0-py3-none-any.whl.metadata (1.6 kB)
Collecting keras>=3.5.0 (from tensorflow-intel==2.18.0->tensorflow)
  Using cached keras-3.7.0-py3-none-any.whl.metadata (5.8 kB)
Requirement already satisfied: numpy<2.1.0,>=1.26.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (1.26.4)
Requirement already satisfied: h5py>=3.11.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (3.12.1)
Collecting ml-dtypes<0.5.0,>=0.4.0 (from tensorflow-intel==2.18.0->tensorflow)
  Using cached ml_dtypes-0.4.1-cp310-cp310-win_amd64.whl.metadata (20 kB)
Requirement already satisfied: tensorflow-io-gcs-filesystem>=0.23.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorflow-intel==2.18.0->tensorflow) (0.31.0)
Requirement already satisfied: wheel<1.0,>=0.23.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from astunparse>=1.6.0->tensorflow-intel==2.18.0->tensorflow) (0.45.1)
Requirement already satisfied: rich in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from keras>=3.5.0->tensorflow-intel==2.18.0->tensorflow) (13.9.4)
Requirement already satisfied: namex in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from keras>=3.5.0->tensorflow-intel==2.18.0->tensorflow) (0.0.8)
Requirement already satisfied: optree in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from keras>=3.5.0->tensorflow-intel==2.18.0->tensorflow) (0.13.1)
Requirement already satisfied: charset-normalizer<4,>=2 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from requests<3,>=2.21.0->tensorflow-intel==2.18.0->tensorflow) (3.4.1)
Requirement already satisfied: idna<4,>=2.5 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from requests<3,>=2.21.0->tensorflow-intel==2.18.0->tensorflow) (3.7)
Requirement already satisfied: urllib3<3,>=1.21.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from requests<3,>=2.21.0->tensorflow-intel==2.18.0->tensorflow) (2.3.0)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from requests<3,>=2.21.0->tensorflow-intel==2.18.0->tensorflow) (2024.12.14)
Requirement already satisfied: markdown>=2.6.8 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorboard<2.19,>=2.18->tensorflow-intel==2.18.0->tensorflow) (3.7)
Requirement already satisfied: tensorboard-data-server<0.8.0,>=0.7.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorboard<2.19,>=2.18->tensorflow-intel==2.18.0->tensorflow) (0.7.2)
Requirement already satisfied: werkzeug>=1.0.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from tensorboard<2.19,>=2.18->tensorflow-intel==2.18.0->tensorflow) (3.1.3)
Requirement already satisfied: MarkupSafe>=2.1.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from werkzeug>=1.0.1->tensorboard<2.19,>=2.18->tensorflow-intel==2.18.0->tensorflow) (3.0.2)
Requirement already satisfied: markdown-it-py>=2.2.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from rich->keras>=3.5.0->te
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nsorflow-intel==2.18.0->tensorflow) (3.0.0)
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in c:\users\matha\appdat
a\local\programs\python\python310\lib\site-packages (from rich->keras>=3.5.0->t
ensorflow-intel==2.18.0->tensorflow) (2.18.0)
Requirement already satisfied: mdurl~=0.1 in c:\users\matha\appdata\local\progr
ams\python\python310\lib\site-packages (from markdown-it-py>=2.2.0->rich->keras
>=3.5.0->tensorflow-intel==2.18.0->tensorflow) (0.1.2)
Using cached keras-3.7.0-py3-none-any.whl (1.2 MB)
Using cached ml_dtypes-0.4.1-cp310-cp310-win_amd64.whl (126 kB)
Using cached tensorboard-2.18.0-py3-none-any.whl (5.5 MB)
Installing collected packages: ml-dtypes, tensorboard, keras
    Attempting uninstall: ml-dtypes
        Found existing installation: ml-dtypes 0.3.2
        Uninstalling ml-dtypes-0.3.2:
            Successfully uninstalled ml-dtypes-0.3.2
    Attempting uninstall: tensorboard
        Found existing installation: tensorboard 2.15.2
        Uninstalling tensorboard-2.15.2:
            Successfully uninstalled tensorboard-2.15.2
    Attempting uninstall: keras
        Found existing installation: keras 2.15.0
        Uninstalling keras-2.15.0:
            Successfully uninstalled keras-2.15.0
Successfully installed keras-3.7.0 ml-dtypes-0.4.1 tensorboard-2.18.0
Note: you may need to restart the kernel to use updated packages.

The system cannot find the path specified.
WARNING: Failed to remove contents in a temporary directory 'C:\Users\matha\A
ppData\Local\Programs\Python\Python310\Lib\site-packages\~l_dtypes'.
You can safely remove it manually.
```

In [6]: pip install torchvision

```
Requirement already satisfied: torchvision in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (0.20.1)
Requirement already satisfied: numpy in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torchvision) (1.26.4)
Requirement already satisfied: torch==2.5.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torchvision) (2.5.1)
Requirement already satisfied: pillow!=8.3.*,>=5.3.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torchvision) (11.0.0)
Requirement already satisfied: filelock in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torch==2.5.1->torchvision) (3.16.1)
Requirement already satisfied: typing-extensions>=4.8.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torch==2.5.1->torchvision) (4.12.2)
Requirement already satisfied: networkx in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torch==2.5.1->torchvision) (3.4.2)
Requirement already satisfied: jinja2 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torch==2.5.1->torchvision) (3.1.5)
Requirement already satisfied: fsspec in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torch==2.5.1->torchvision) (2024.12.0)
Requirement already satisfied: sympy==1.13.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from torch==2.5.1->torchvision) (1.13.1)
Requirement already satisfied: mpmath<1.4,>=1.1.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from sympy==1.13.1->torch==2.5.1->torchvision) (1.3.0)
Requirement already satisfied: MarkupSafe>=2.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from jinja2->torch==2.5.1->torchvision) (3.0.2)
Note: you may need to restart the kernel to use updated packages.
```

The system cannot find the path specified.

In [7]: pip install ultralytics opencv-python

Requirement already satisfied: ultralytics in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (8.3.56)
Note: you may need to restart the kernel to use updated packages.

Requirement already satisfied: opencv-python in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (4.10.0.84)
Requirement already satisfied: numpy>=1.23.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (1.26.4)
Requirement already satisfied: matplotlib>=3.3.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (3.10.0)
Requirement already satisfied: pillow>=7.1.2 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (11.0.0)
Requirement already satisfied: pyyaml>=5.3.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (6.0.2)
Requirement already satisfied: requests>=2.23.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (2.32.3)
Requirement already satisfied: scipy>=1.4.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (1.14.1)
Requirement already satisfied: torch>=1.8.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (2.5.1)
Requirement already satisfied: torchvision>=0.9.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (0.20.1)
Requirement already satisfied: tqdm>=4.64.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (4.67.1)
Requirement already satisfied: psutil in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (6.1.1)
Requirement already satisfied: py-cpuinfo in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (9.0.0)
Requirement already satisfied: pandas>=1.1.4 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (2.2.3)
Requirement already satisfied: seaborn>=0.11.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (0.13.2)
Requirement already satisfied: ultralytics-thop>=2.0.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from ultralytics) (2.0.13)
Requirement already satisfied: contourpy>=1.0.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (1.3.1)
Requirement already satisfied: cycler>=0.10 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (0.12.1)
Requirement already satisfied: fonttools>=4.22.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (4.55.3)
Requirement already satisfied: kiwisolver>=1.3.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (1.4.8)
Requirement already satisfied: packaging>=20.0 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (23.2)
Requirement already satisfied: pyparsing>=2.3.1 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (3.2.0)
Requirement already satisfied: python-dateutil>=2.7 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultralytics) (2.3.1)

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ocal\programs\python\python310\lib\site-packages (from matplotlib>=3.3.0->ultra
lytics) (2.9.0.post0)
Requirement already satisfied: pytz>=2020.1 in c:\users\matha\appdata\local\pro
grams\python\python310\lib\site-packages (from pandas>=1.1.4->ultralytics) (202
4.2)
Requirement already satisfied: tzdata>=2022.7 in c:\users\matha\appdata\local\p
ograms\python\python310\lib\site-packages (from pandas>=1.1.4->ultralytics) (2
024.2)
Requirement already satisfied: charset-normalizer<4,>=2 in c:\users\matha\appda
ta\local\programs\python\python310\lib\site-packages (from requests>=2.23.0->ul
tralytics) (3.4.1)
Requirement already satisfied: idna<4,>=2.5 in c:\users\matha\appdata\local\pro
grams\python\python310\lib\site-packages (from requests>=2.23.0->ultralytics)
(3.7)
Requirement already satisfied: urllib3<3,>=1.21.1 in c:\users\matha\appdata\loc
al\programs\python\python310\lib\site-packages (from requests>=2.23.0->ultralyt
ics) (2.3.0)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\matha\appdata\loc
al\programs\python\python310\lib\site-packages (from requests>=2.23.0->ultralyt
ics) (2024.12.14)
Requirement already satisfied: filelock in c:\users\matha\appdata\local\program
s\python\python310\lib\site-packages (from torch>=1.8.0->ultralytics) (3.16.1)
Requirement already satisfied: typing-extensions>=4.8.0 in c:\users\matha\appda
ta\local\programs\python\python310\lib\site-packages (from torch>=1.8.0->ultral
ytics) (4.12.2)
Requirement already satisfied: networkx in c:\users\matha\appdata\local\program
s\python\python310\lib\site-packages (from torch>=1.8.0->ultralytics) (3.4.2)
Requirement already satisfied: jinja2 in c:\users\matha\appdata\local\programs
\python\python310\lib\site-packages (from torch>=1.8.0->ultralytics) (3.1.5)
Requirement already satisfied: fsspec in c:\users\matha\appdata\local\programs
\python\python310\lib\site-packages (from torch>=1.8.0->ultralytics) (2024.12.
0)
Requirement already satisfied: sympy==1.13.1 in c:\users\matha\appdata\local\pr
ograms\python\python310\lib\site-packages (from torch>=1.8.0->ultralytics) (1.1
3.1)
Requirement already satisfied: mpmath<1.4,>=1.1.0 in c:\users\matha\appdata\loc
al\programs\python\python310\lib\site-packages (from sympy==1.13.1->torch>=1.8.
0->ultralytics) (1.3.0)
Requirement already satisfied: colorama in c:\users\matha\appdata\local\program
s\python\python310\lib\site-packages (from tqdm>=4.64.0->ultralytics) (0.4.6)
Requirement already satisfied: six>=1.5 in c:\users\matha\appdata\local\program
s\python\python310\lib\site-packages (from python-dateutil>=2.7->matplotlib>=3.
3.0->ultralytics) (1.17.0)
Requirement already satisfied: MarkupSafe>=2.0 in c:\users\matha\appdata\local
\programs\python\python310\lib\site-packages (from jinja2->torch>=1.8.0->ultral
ytics) (3.0.2)
```

The system cannot find the path specified.

```
In [8]: pip uninstall opencv-python opencv-python-headless -y
```

Found existing installation: opencv-python 4.10.0.84Note: you may need to resta
rt the kernel to use updated packages.

The system cannot find the path specified.

```
Uninstalling opencv-python-4.10.0.84:
  Successfully uninstalled opencv-python-4.10.0.84
Found existing installation: opencv-python-headless 4.10.0.84
Uninstalling opencv-python-headless-4.10.0.84:
  Successfully uninstalled opencv-python-headless-4.10.0.84
```

In [9]: pip install opencv-python

```
Collecting opencv-python
  Using cached opencv_python-4.10.0.84-cp37-abi3-win_amd64.whl.metadata (20 kB)
Requirement already satisfied: numpy>=1.21.2 in c:\users\matha\appdata\local\programs\python\python310\lib\site-packages (from opencv-python) (1.26.4)
Using cached opencv_python-4.10.0.84-cp37-abi3-win_amd64.whl (38.8 MB)
Installing collected packages: opencv-python
Successfully installed opencv-python-4.10.0.84
Note: you may need to restart the kernel to use updated packages.
```

The system cannot find the path specified.

In [1]:

```
import cv2
import torch
import matplotlib.pyplot as plt
from ultralytics import YOLO

# Load the YOLOv8 model
model = YOLO("C:/Users/matha/Downloads/best (5).pt") # Replace with the corre

# Open the webcam
cap = cv2.VideoCapture(0)
# Check if the webcam opened successfully
if not cap.isOpened():
    print("Error: Could not access the webcam.")
    exit()

print("Webcam is running. Press 'q' to exit.")

try:
    while True:
        ret, frame = cap.read()
        if not ret:
            print("Error: Could not read frame from webcam.")
            break
        # Run YOLOv8 inference
        results = model(frame) # Inference
        annotated_frame = results[0].plot() # Annotate the frame with predict

        try:
            # Try to display the frame using OpenCV
            cv2.imshow("YOLOv8 Dynamic Predictions", annotated_frame)

            # Exit if 'q' is pressed
            if cv2.waitKey(1) & 0xFF == ord('q'):
                break
        except cv2.error as e:
            print("cv2.imshow failed. Falling back to matplotlib.")
```

```
# Fall back to using Matplotlib if OpenCV fails
plt.imshow(cv2.cvtColor(annotated_frame, cv2.COLOR_BGR2RGB))
plt.axis('off') # Hide axes
plt.show(block=False)
plt.pause(0.001) # Give it a moment to render
plt.clf() # Clear the frame for the next iteration
except KeyboardInterrupt:
    print("Exiting...")
finally:
    # Release resources
    cap.release()
    cv2.destroyAllWindows() # Close any OpenCV windows
    plt.close() # Close any Matplotlib windows
    print("Webcam released, and windows closed.")
```

Webcam is running. Press 'q' to exit.

0: 480x640 (no detections), 408.4ms

Speed: 15.6ms preprocess, 408.4ms inference, 12.4ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 289.6ms

Speed: 5.5ms preprocess, 289.6ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Home, 281.9ms

Speed: 4.0ms preprocess, 281.9ms inference, 8.5ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 388.0ms

Speed: 11.0ms preprocess, 388.0ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Help, 276.6ms

Speed: 5.1ms preprocess, 276.6ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 254.6ms

Speed: 4.0ms preprocess, 254.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 382.2ms

Speed: 4.2ms preprocess, 382.2ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 304.5ms

Speed: 4.0ms preprocess, 304.5ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 329.0ms

Speed: 5.0ms preprocess, 329.0ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 320.7ms

Speed: 7.4ms preprocess, 320.7ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 260.7ms

Speed: 6.0ms preprocess, 260.7ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 281.8ms

Speed: 3.0ms preprocess, 281.8ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 341.3ms

Speed: 3.1ms preprocess, 341.3ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 255.4ms
Speed: 4.0ms preprocess, 255.4ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 228.3ms
Speed: 2.6ms preprocess, 228.3ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 262.6ms
Speed: 3.0ms preprocess, 262.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 249.2ms
Speed: 3.5ms preprocess, 249.2ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 239.8ms
Speed: 2.0ms preprocess, 239.8ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 239.3ms
Speed: 4.0ms preprocess, 239.3ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 243.5ms
Speed: 4.0ms preprocess, 243.5ms inference, 1.2ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 256.9ms
Speed: 4.4ms preprocess, 256.9ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 249.9ms
Speed: 3.0ms preprocess, 249.9ms inference, 1.2ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 240.0ms
Speed: 2.0ms preprocess, 240.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 219.2ms
Speed: 2.0ms preprocess, 219.2ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 215.5ms
Speed: 2.0ms preprocess, 215.5ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 224.0ms
Speed: 2.5ms preprocess, 224.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Hello, 221.3ms
Speed: 3.1ms preprocess, 221.3ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 214.1ms
Speed: 3.1ms preprocess, 214.1ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 222.8ms
Speed: 3.0ms preprocess, 222.8ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 220.1ms
Speed: 2.3ms preprocess, 220.1ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Hello, 234.9ms
Speed: 4.0ms preprocess, 234.9ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Hello, 1 Please, 216.3ms
Speed: 2.0ms preprocess, 216.3ms inference, 3.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Hello, 232.0ms
Speed: 3.1ms preprocess, 232.0ms inference, 1.6ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Hello, 220.7ms
Speed: 3.1ms preprocess, 220.7ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Hello, 230.5ms
Speed: 2.1ms preprocess, 230.5ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 221.7ms
Speed: 2.2ms preprocess, 221.7ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 223.4ms
Speed: 3.0ms preprocess, 223.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 233.8ms
Speed: 4.1ms preprocess, 233.8ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 242.6ms
Speed: 3.0ms preprocess, 242.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 215.1ms

Speed: 2.5ms preprocess, 215.1ms inference, 0.9ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 226.5ms

Speed: 5.0ms preprocess, 226.5ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 ILoveYou, 261.0ms

Speed: 2.1ms preprocess, 261.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 237.2ms

Speed: 3.1ms preprocess, 237.2ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 221.1ms

Speed: 3.6ms preprocess, 221.1ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 233.5ms

Speed: 2.2ms preprocess, 233.5ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 230.7ms

Speed: 3.4ms preprocess, 230.7ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 251.9ms

Speed: 2.4ms preprocess, 251.9ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 251.7ms

Speed: 2.0ms preprocess, 251.7ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 225.4ms

Speed: 4.0ms preprocess, 225.4ms inference, 1.4ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 230.6ms

Speed: 3.0ms preprocess, 230.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 230.0ms

Speed: 3.1ms preprocess, 230.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 229.2ms

Speed: 3.0ms preprocess, 229.2ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 314.6ms

Speed: 4.0ms preprocess, 314.6ms inference, 0.0ms postprocess per image at shape

e (1, 3, 480, 640)

0: 480x640 1 Hello, 236.9ms

Speed: 3.0ms preprocess, 236.9ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 255.2ms

Speed: 3.0ms preprocess, 255.2ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 2 Hellos, 234.9ms

Speed: 3.0ms preprocess, 234.9ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Hello, 228.6ms

Speed: 1.6ms preprocess, 228.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 2 Hellos, 235.1ms

Speed: 3.0ms preprocess, 235.1ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 222.0ms

Speed: 3.0ms preprocess, 222.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 228.8ms

Speed: 2.0ms preprocess, 228.8ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 232.9ms

Speed: 3.0ms preprocess, 232.9ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 240.3ms

Speed: 2.0ms preprocess, 240.3ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 243.9ms

Speed: 5.0ms preprocess, 243.9ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 243.4ms

Speed: 2.0ms preprocess, 243.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Hello, 239.7ms

Speed: 4.1ms preprocess, 239.7ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Hello, 241.0ms

Speed: 2.3ms preprocess, 241.0ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Hello, 239.5ms
Speed: 3.5ms preprocess, 239.5ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Hello, 231.4ms
Speed: 5.0ms preprocess, 231.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Hello, 240.3ms
Speed: 3.1ms preprocess, 240.3ms inference, 2.3ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 242.3ms
Speed: 3.0ms preprocess, 242.3ms inference, 1.4ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 237.1ms
Speed: 3.0ms preprocess, 237.1ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 248.1ms
Speed: 4.1ms preprocess, 248.1ms inference, 1.1ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 252.0ms
Speed: 2.1ms preprocess, 252.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 237.1ms
Speed: 2.5ms preprocess, 237.1ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 236.4ms
Speed: 2.1ms preprocess, 236.4ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 225.6ms
Speed: 4.2ms preprocess, 225.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 249.3ms
Speed: 4.0ms preprocess, 249.3ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 241.4ms
Speed: 3.3ms preprocess, 241.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 ILoveYou, 239.7ms
Speed: 1.1ms preprocess, 239.7ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 ILoveYou, 238.5ms
Speed: 3.0ms preprocess, 238.5ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 ILoveYou, 254.9ms
Speed: 4.0ms preprocess, 254.9ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 ILoveYou, 261.3ms
Speed: 2.4ms preprocess, 261.3ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 ILoveYou, 238.6ms
Speed: 3.1ms preprocess, 238.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 240.0ms
Speed: 3.3ms preprocess, 240.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 No, 277.9ms
Speed: 2.0ms preprocess, 277.9ms inference, 1.1ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 No, 237.7ms
Speed: 4.0ms preprocess, 237.7ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 No, 236.8ms
Speed: 3.0ms preprocess, 236.8ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 No, 259.0ms
Speed: 2.4ms preprocess, 259.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 No, 242.2ms
Speed: 2.1ms preprocess, 242.2ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 233.2ms
Speed: 4.1ms preprocess, 233.2ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 No, 235.5ms
Speed: 4.0ms preprocess, 235.5ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 No, 236.3ms
Speed: 2.0ms preprocess, 236.3ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 No, 262.6ms

Speed: 3.3ms preprocess, 262.6ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 No, 235.2ms

Speed: 2.3ms preprocess, 235.2ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 241.4ms

Speed: 2.5ms preprocess, 241.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 255.5ms

Speed: 2.0ms preprocess, 255.5ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 247.8ms

Speed: 3.0ms preprocess, 247.8ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 316.0ms

Speed: 3.0ms preprocess, 316.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 238.8ms

Speed: 2.4ms preprocess, 238.8ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 252.2ms

Speed: 3.0ms preprocess, 252.2ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 227.1ms

Speed: 4.0ms preprocess, 227.1ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 234.9ms

Speed: 2.1ms preprocess, 234.9ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 242.4ms

Speed: 2.0ms preprocess, 242.4ms inference, 1.5ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 246.8ms

Speed: 2.0ms preprocess, 246.8ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 250.6ms

Speed: 3.0ms preprocess, 250.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 233.3ms

Speed: 2.0ms preprocess, 233.3ms inference, 1.0ms postprocess per image at shape

e (1, 3, 480, 640)

0: 480x640 1 No, 238.7ms

Speed: 4.0ms preprocess, 238.7ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 No, 242.5ms

Speed: 3.0ms preprocess, 242.5ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 No, 240.0ms

Speed: 2.0ms preprocess, 240.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 233.7ms

Speed: 3.1ms preprocess, 233.7ms inference, 1.2ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 247.0ms

Speed: 5.1ms preprocess, 247.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 252.7ms

Speed: 5.3ms preprocess, 252.7ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Yes, 246.3ms

Speed: 2.8ms preprocess, 246.3ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 234.7ms

Speed: 2.2ms preprocess, 234.7ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 233.6ms

Speed: 3.0ms preprocess, 233.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 244.2ms

Speed: 2.1ms preprocess, 244.2ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 237.0ms

Speed: 3.2ms preprocess, 237.0ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 235.8ms

Speed: 2.0ms preprocess, 235.8ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 285.5ms

Speed: 2.2ms preprocess, 285.5ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 288.4ms
Speed: 4.0ms preprocess, 288.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 346.9ms
Speed: 7.0ms preprocess, 346.9ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 275.6ms
Speed: 4.6ms preprocess, 275.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 281.0ms
Speed: 3.0ms preprocess, 281.0ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 270.2ms
Speed: 5.1ms preprocess, 270.2ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 267.5ms
Speed: 3.0ms preprocess, 267.5ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 404.3ms
Speed: 3.0ms preprocess, 404.3ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 363.4ms
Speed: 5.0ms preprocess, 363.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 374.4ms
Speed: 5.0ms preprocess, 374.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 383.0ms
Speed: 5.0ms preprocess, 383.0ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 402.3ms
Speed: 4.0ms preprocess, 402.3ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 355.6ms
Speed: 6.0ms preprocess, 355.6ms inference, 3.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 314.0ms
Speed: 3.0ms preprocess, 314.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 300.6ms
Speed: 2.0ms preprocess, 300.6ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 346.0ms
Speed: 7.0ms preprocess, 346.0ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 312.8ms
Speed: 3.0ms preprocess, 312.8ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 360.3ms
Speed: 5.0ms preprocess, 360.3ms inference, 3.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 292.9ms
Speed: 5.0ms preprocess, 292.9ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 264.1ms
Speed: 4.0ms preprocess, 264.1ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 261.3ms
Speed: 4.0ms preprocess, 261.3ms inference, 3.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 263.3ms
Speed: 2.0ms preprocess, 263.3ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 2 Pleases, 277.7ms
Speed: 4.0ms preprocess, 277.7ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 273.3ms
Speed: 3.0ms preprocess, 273.3ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 292.7ms
Speed: 5.0ms preprocess, 292.7ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 279.3ms
Speed: 2.2ms preprocess, 279.3ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 295.8ms
Speed: 5.0ms preprocess, 295.8ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 326.7ms

Speed: 2.0ms preprocess, 326.7ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 315.7ms

Speed: 4.0ms preprocess, 315.7ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 298.7ms

Speed: 3.3ms preprocess, 298.7ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 300.5ms

Speed: 4.0ms preprocess, 300.5ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 272.2ms

Speed: 5.0ms preprocess, 272.2ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Eat, 301.1ms

Speed: 5.0ms preprocess, 301.1ms inference, 2.5ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Eat, 304.2ms

Speed: 3.0ms preprocess, 304.2ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Eat, 358.7ms

Speed: 4.0ms preprocess, 358.7ms inference, 1.3ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Eat, 347.5ms

Speed: 5.0ms preprocess, 347.5ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Eat, 344.4ms

Speed: 4.0ms preprocess, 344.4ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Eat, 364.7ms

Speed: 5.0ms preprocess, 364.7ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 2 Helps, 414.1ms

Speed: 5.0ms preprocess, 414.1ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Help, 427.2ms

Speed: 4.0ms preprocess, 427.2ms inference, 2.1ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Help, 444.8ms

Speed: 5.3ms preprocess, 444.8ms inference, 2.0ms postprocess per image at shape

e (1, 3, 480, 640)

0: 480x640 1 Help, 452.2ms

Speed: 7.0ms preprocess, 452.2ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Help, 370.3ms

Speed: 4.5ms preprocess, 370.3ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Help, 414.5ms

Speed: 5.1ms preprocess, 414.5ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Help, 401.9ms

Speed: 4.6ms preprocess, 401.9ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Help, 347.4ms

Speed: 4.0ms preprocess, 347.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Help, 329.1ms

Speed: 4.0ms preprocess, 329.1ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Help, 339.8ms

Speed: 4.0ms preprocess, 339.8ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Help, 345.4ms

Speed: 4.6ms preprocess, 345.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 332.6ms

Speed: 4.0ms preprocess, 332.6ms inference, 1.5ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 317.2ms

Speed: 4.0ms preprocess, 317.2ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 293.3ms

Speed: 5.0ms preprocess, 293.3ms inference, 1.5ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 See_You_Later, 313.1ms

Speed: 3.0ms preprocess, 313.1ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 See_You_Later, 293.6ms

Speed: 6.6ms preprocess, 293.6ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 See_You_Later, 307.8ms
Speed: 3.3ms preprocess, 307.8ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 See_You_Later, 322.8ms
Speed: 5.0ms preprocess, 322.8ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 See_You_Later, 340.2ms
Speed: 5.0ms preprocess, 340.2ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 See_You_Later, 356.6ms
Speed: 5.6ms preprocess, 356.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 350.6ms
Speed: 5.0ms preprocess, 350.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 See_You_Later, 342.0ms
Speed: 5.0ms preprocess, 342.0ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 See_You_Later, 355.7ms
Speed: 5.0ms preprocess, 355.7ms inference, 3.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 See_You_Later, 390.1ms
Speed: 3.0ms preprocess, 390.1ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 See_You_Later, 404.0ms
Speed: 5.0ms preprocess, 404.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 See_You_Later, 281.3ms
Speed: 4.0ms preprocess, 281.3ms inference, 2.3ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 See_You_Later, 285.3ms
Speed: 3.0ms preprocess, 285.3ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 See_You_Later, 289.6ms
Speed: 4.0ms preprocess, 289.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 308.5ms
Speed: 5.0ms preprocess, 308.5ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Home, 320.9ms
Speed: 6.0ms preprocess, 320.9ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Home, 326.5ms
Speed: 5.0ms preprocess, 326.5ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Home, 314.0ms
Speed: 4.0ms preprocess, 314.0ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Home, 279.9ms
Speed: 2.1ms preprocess, 279.9ms inference, 1.4ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Home, 294.0ms
Speed: 4.2ms preprocess, 294.0ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Home, 294.9ms
Speed: 3.5ms preprocess, 294.9ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Home, 284.4ms
Speed: 3.0ms preprocess, 284.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 284.4ms
Speed: 3.0ms preprocess, 284.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 261.1ms
Speed: 4.5ms preprocess, 261.1ms inference, 1.2ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 272.5ms
Speed: 5.0ms preprocess, 272.5ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 283.6ms
Speed: 2.0ms preprocess, 283.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 273.6ms
Speed: 3.0ms preprocess, 273.6ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 254.1ms
Speed: 5.0ms preprocess, 254.1ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Thanks, 282.4ms

Speed: 3.0ms preprocess, 282.4ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 300.2ms

Speed: 4.0ms preprocess, 300.2ms inference, 2.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 1 Please, 1 Thanks, 286.5ms

Speed: 7.0ms preprocess, 286.5ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 362.4ms

Speed: 3.0ms preprocess, 362.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 269.2ms

Speed: 5.0ms preprocess, 269.2ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 267.5ms

Speed: 3.0ms preprocess, 267.5ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 276.6ms

Speed: 2.4ms preprocess, 276.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 283.0ms

Speed: 2.0ms preprocess, 283.0ms inference, 1.2ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 349.6ms

Speed: 4.0ms preprocess, 349.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 428.2ms

Speed: 5.0ms preprocess, 428.2ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 281.8ms

Speed: 3.0ms preprocess, 281.8ms inference, 1.1ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 235.3ms

Speed: 2.1ms preprocess, 235.3ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 244.6ms

Speed: 3.0ms preprocess, 244.6ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 282.9ms

Speed: 5.0ms preprocess, 282.9ms inference, 1.0ms postprocess per image at shape

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e (1, 3, 480, 640)
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0: 480x640 (no detections), 374.3ms

Speed: 5.0ms preprocess, 374.3ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 277.2ms

Speed: 4.0ms preprocess, 277.2ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 292.5ms

Speed: 4.0ms preprocess, 292.5ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 315.2ms

Speed: 3.0ms preprocess, 315.2ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 353.9ms

Speed: 12.6ms preprocess, 353.9ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 256.3ms

Speed: 7.0ms preprocess, 256.3ms inference, 0.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 249.4ms

Speed: 3.0ms preprocess, 249.4ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

0: 480x640 (no detections), 235.7ms

Speed: 3.0ms preprocess, 235.7ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)

Webcam released, and windows closed.

In []: