```
In [22]: from ultralytics import YOLO

model = YOLO('yolov5s.pt') # This will auto-download if not cached
results = model('https://ultralytics.com/images/bus.jpg')
results[0].show()
```

PRO TIP Replace 'model=yolov5s.pt' with new 'model=yolov5su.pt'. YOLOv5 'u' models are trained with https://github.com/ultralytics/ultralytics and feature improved performance vs standard YOLOv5 models trained with https://github.com/ultralytics/yolov5.

Found https://ultralytics.com/images/bus.jpg locally at bus.jpg image 1/1 c:\github projects\GauravJha_Phase2_Assignment_TechAtPlay\Task1_DetectionSummary\bus.jpg: 640x480 4 persons, 1 bus, 173.5ms
Speed: 3.3ms preprocess, 173.5ms inference, 1.1ms postprocess per image at shape (1, 3, 640, 480)

```
import cv2
import json
import os
import matplotlib.pyplot as plt
from collections import Counter
from ultralytics import YOLO

# Load YOLOv5 model (pretrained)
model = YOLO('yolov5s.pt')
```

PRO TIP Replace 'model=yolov5s.pt' with new 'model=yolov5su.pt'. YOLOv5 'u' models are trained with https://github.com/ultralytics/ultralytics and feature improved performance vs standard YOLOv5 models trained with https://github.com/ultralytics/yolov5.

```
In [24]: video path = 'video.mp4'
         cap = cv2.VideoCapture(video_path)
         frame_interval = 5
         frame number = 0
         results_json = []
         while True:
             ret, frame = cap.read()
             if not ret:
                 break
             if frame number % frame interval == 0:
                  # Convert frame to RGB
                 frame_rgb = cv2.cvtColor(frame, cv2.COLOR_BGR2RGB)
                  # Run detection
                 results = model(frame_rgb)[0]
                 # Save detection info
                 frame data = {
                      'frame': frame_number,
                      'objects': []
                  }
```

127.0.0.1:5500/task1.html 1/13

```
for box in results.boxes:
    cls_id = int(box.cls[0])
    label = model.names[cls_id]
    conf = float(box.conf[0])
    x1, y1, x2, y2 = map(int, box.xyxy[0])

    frame_data['objects'].append({
        'label': label,
        'confidence': round(conf, 2),
        'bbox': [x1, y1, x2, y2]
    })

    results_json.append(frame_data)

frame_number += 1

cap.release()
print(" Detection complete on every 5th frame.")
```

127.0.0.1:5500/task1.html 2/13

0: 384x640 17 persons, 1 backpack, 99.1ms

Speed: 2.6ms preprocess, 99.1ms inference, 1.5ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 18 persons, 1 backpack, 92.3ms

Speed: 2.5ms preprocess, 92.3ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 19 persons, 1 backpack, 92.4ms

Speed: 1.6ms preprocess, 92.4ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 17 persons, 109.5ms

Speed: 2.2ms preprocess, 109.5ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 98.1ms

Speed: 2.4ms preprocess, 98.1ms inference, 2.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 18 persons, 1 backpack, 129.1ms

Speed: 2.0ms preprocess, 129.1ms inference, 2.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 21 persons, 1 backpack, 1 handbag, 127.8ms

Speed: 2.5ms preprocess, 127.8ms inference, 1.8ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 17 persons, 2 backpacks, 1 handbag, 98.7ms

Speed: 3.4ms preprocess, 98.7ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 17 persons, 2 handbags, 85.4ms

Speed: 2.5ms preprocess, 85.4ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 1 backpack, 93.6ms

Speed: 2.3ms preprocess, 93.6ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 1 backpack, 89.0ms

Speed: 2.3ms preprocess, 89.0ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 14 persons, 1 backpack, 2 handbags, 1 suitcase, 93.8ms

Speed: 2.4ms preprocess, 93.8ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 14 persons, 3 backpacks, 3 handbags, 87.5ms

Speed: 2.3ms preprocess, 87.5ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 2 backpacks, 1 handbag, 174.6ms

Speed: 2.6ms preprocess, 174.6ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 1 backpack, 99.0ms

Speed: 2.4ms preprocess, 99.0ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

127.0.0.1:5500/task1.html 3/13

0: 384x640 16 persons, 2 backpacks, 86.6ms

Speed: 2.5ms preprocess, 86.6ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 2 backpacks, 1 handbag, 1 tie, 86.1ms

Speed: 1.9ms preprocess, 86.1ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 2 backpacks, 1 handbag, 81.3ms

Speed: 2.6ms preprocess, 81.3ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 11 persons, 2 backpacks, 1 handbag, 82.1ms

Speed: 2.7ms preprocess, 82.1ms inference, 1.4ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 2 backpacks, 82.2ms

Speed: 2.4ms preprocess, 82.2ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 14 persons, 3 backpacks, 84.3ms

Speed: 2.3ms preprocess, 84.3ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 2 backpacks, 84.4ms

Speed: 2.2ms preprocess, 84.4ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 17 persons, 2 backpacks, 84.6ms

Speed: 1.8ms preprocess, 84.6ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 1 elephant, 2 backpacks, 1 cup, 79.1ms

Speed: 2.2ms preprocess, 79.1ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 2 backpacks, 1 handbag, 1 cup, 72.3ms

Speed: 1.8ms preprocess, 72.3ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 18 persons, 2 backpacks, 84.5ms

Speed: 2.2ms preprocess, 84.5ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 21 persons, 1 backpack, 84.5ms

Speed: 1.6ms preprocess, 84.5ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 20 persons, 2 backpacks, 85.2ms

Speed: 1.6ms preprocess, 85.2ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 1 backpack, 83.2ms

Speed: 1.8ms preprocess, 83.2ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 18 persons, 2 backpacks, 1 handbag, 83.9ms

Speed: 2.2ms preprocess, 83.9ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

127.0.0.1:5500/task1.html 4/13

0: 384x640 18 persons, 1 backpack, 85.7ms

Speed: 2.5ms preprocess, 85.7ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 86.4ms

Speed: 2.2ms preprocess, 86.4ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 1 backpack, 85.2ms

Speed: 1.6ms preprocess, 85.2ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 1 backpack, 81.1ms

Speed: 1.9ms preprocess, 81.1ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 82.3ms

Speed: 1.5ms preprocess, 82.3ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 1 backpack, 81.5ms

Speed: 1.6ms preprocess, 81.5ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 12 persons, 83.4ms

Speed: 2.1ms preprocess, 83.4ms inference, 0.8ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 81.4ms

Speed: 1.6ms preprocess, 81.4ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 1 backpack, 83.7ms

Speed: 1.9ms preprocess, 83.7ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 19 persons, 1 truck, 2 backpacks, 1 tie, 81.5ms

Speed: 1.8ms preprocess, 81.5ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 18 persons, 1 truck, 2 backpacks, 80.9ms

Speed: 2.1ms preprocess, 80.9ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 17 persons, 1 truck, 1 backpack, 87.2ms

Speed: 2.3ms preprocess, 87.2ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 20 persons, 1 bus, 1 truck, 1 backpack, 1 handbag, 84.1ms

Speed: 1.6ms preprocess, 84.1ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 19 persons, 1 backpack, 1 handbag, 85.3ms

Speed: 2.4ms preprocess, 85.3ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 1 backpack, 86.2ms

Speed: 1.9ms preprocess, 86.2ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

127.0.0.1:5500/task1.html 5/13

0: 384x640 15 persons, 1 backpack, 2 handbags, 87.7ms

Speed: 2.4ms preprocess, 87.7ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 18 persons, 1 backpack, 3 handbags, 84.4ms

Speed: 2.2ms preprocess, 84.4ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 1 backpack, 2 handbags, 84.3ms

Speed: 2.1ms preprocess, 84.3ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 1 backpack, 1 handbag, 82.2ms

Speed: 1.6ms preprocess, 82.2ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 1 backpack, 84.9ms

Speed: 1.6ms preprocess, 84.9ms inference, 0.8ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 18 persons, 2 backpacks, 1 handbag, 87.6ms

Speed: 2.3ms preprocess, 87.6ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 14 persons, 2 backpacks, 86.7ms

Speed: 2.3ms preprocess, 86.7ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 86.8ms

Speed: 2.1ms preprocess, 86.8ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 2 backpacks, 92.1ms

Speed: 1.7ms preprocess, 92.1ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 11 persons, 1 backpack, 84.1ms

Speed: 2.0ms preprocess, 84.1ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 12 persons, 2 backpacks, 82.8ms

Speed: 1.7ms preprocess, 82.8ms inference, 0.8ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 1 truck, 2 backpacks, 88.9ms

Speed: 2.0ms preprocess, 88.9ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 1 truck, 2 backpacks, 90.7ms

Speed: 2.5ms preprocess, 90.7ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 3 backpacks, 83.0ms

Speed: 2.4ms preprocess, 83.0ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

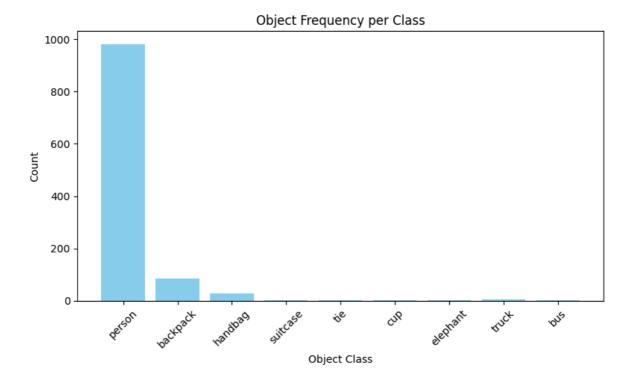
0: 384x640 18 persons, 2 backpacks, 85.8ms

Speed: 2.3ms preprocess, 85.8ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

127.0.0.1:5500/task1.html 6/13

```
0: 384x640 14 persons, 2 backpacks, 2 handbags, 1 tie, 84.8ms
        Speed: 1.9ms preprocess, 84.8ms inference, 1.0ms postprocess per image at shape
        (1, 3, 384, 640)
        0: 384x640 17 persons, 2 backpacks, 1 handbag, 83.5ms
        Speed: 1.6ms preprocess, 83.5ms inference, 1.1ms postprocess per image at shape
        (1, 3, 384, 640)
        Detection complete on every 5th frame.
In [25]: with open('detection_results.json', 'w') as f:
             json.dump(results_json, f, indent=4)
         print("  detection results.json saved.")
        detection_results.json saved.
In [26]: all_labels = []
         diversity_scores = []
         for frame_data in results_json:
             labels = [obj['label'] for obj in frame_data['objects']]
             all labels.extend(labels)
             diversity_scores.append((frame_data['frame'], len(set(labels))))
         # Count all objects
         label_counts = Counter(all_labels)
         # Frame with highest class diversity
         most_diverse_frame = max(diversity_scores, key=lambda x: x[1])
         print("  Frame with max class diversity:", most_diverse_frame)
         print("   Total object counts:", label_counts)
        Frame with max class diversity: (210, 5)
        🆚 Total object counts: Counter({'person': 982, 'backpack': 85, 'handbag': 29,
        'truck': 6, 'tie': 3, 'cup': 2, 'suitcase': 1, 'elephant': 1, 'bus': 1})
In [27]: plt.figure(figsize=(8,5))
         plt.bar(label counts.keys(), label counts.values(), color='skyblue')
         plt.title("Object Frequency per Class")
         plt.xlabel("Object Class")
         plt.ylabel("Count")
         plt.xticks(rotation=45)
         plt.tight layout()
         plt.savefig("object_frequency_chart.png")
         plt.show()
```

127.0.0.1:5500/task1.html 7/13



```
In [28]:
         import os
         # Create output folder if it doesn't exist
         os.makedirs("annotated_frames", exist_ok=True)
         cap = cv2.VideoCapture("video.mp4")
         frame_number = 0
         save_index = 0
         while True:
             ret, frame = cap.read()
             if not ret:
                 break
             if frame number % 5 == 0:
                 results = model(frame)[0]
                 annotated = results.plot() # This draws boxes and labels
                 # Save the frame as image
                 frame_name = f"annotated_frames/frame_{frame_number}.jpg"
                 cv2.imwrite(frame_name, annotated)
                 save_index += 1
             frame_number += 1
         cap.release()
         print(f" Saved {save_index} annotated frames in /annotated_frames/")
```

127.0.0.1:5500/task1.html 8/13

0: 384x640 15 persons, 1 backpack, 97.0ms

Speed: 1.9ms preprocess, 97.0ms inference, 1.4ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 1 backpack, 83.8ms

Speed: 1.7ms preprocess, 83.8ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 14 persons, 1 backpack, 82.2ms

Speed: 2.6ms preprocess, 82.2ms inference, 0.8ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 85.1ms

Speed: 1.8ms preprocess, 85.1ms inference, 1.4ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 12 persons, 83.7ms

Speed: 2.4ms preprocess, 83.7ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 10 persons, 3 backpacks, 86.4ms

Speed: 2.5ms preprocess, 86.4ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 19 persons, 1 backpack, 1 handbag, 87.8ms

Speed: 2.5ms preprocess, 87.8ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 3 backpacks, 1 handbag, 89.1ms

Speed: 2.3ms preprocess, 89.1ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 17 persons, 1 backpack, 1 handbag, 1 tie, 86.2ms

Speed: 2.3ms preprocess, 86.2ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 1 backpack, 86.1ms

Speed: 1.7ms preprocess, 86.1ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 2 backpacks, 1 suitcase, 79.1ms

Speed: 2.6ms preprocess, 79.1ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 12 persons, 3 backpacks, 5 handbags, 1 suitcase, 83.1ms

Speed: 1.6ms preprocess, 83.1ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 11 persons, 3 backpacks, 3 handbags, 82.4ms

Speed: 1.9ms preprocess, 82.4ms inference, 1.6ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 10 persons, 3 backpacks, 1 handbag, 1 suitcase, 82.7ms

Speed: 2.6ms preprocess, 82.7ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 14 persons, 3 backpacks, 77.7ms

Speed: 2.5ms preprocess, 77.7ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

127.0.0.1:5500/task1.html 9/13

0: 384x640 14 persons, 3 backpacks, 2 handbags, 85.0ms

Speed: 2.3ms preprocess, 85.0ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 2 backpacks, 1 handbag, 85.4ms

Speed: 1.7ms preprocess, 85.4ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 3 backpacks, 1 handbag, 84.4ms

Speed: 1.7ms preprocess, 84.4ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 11 persons, 3 backpacks, 1 handbag, 83.6ms

Speed: 2.2ms preprocess, 83.6ms inference, 0.8ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 17 persons, 3 backpacks, 82.2ms

Speed: 2.2ms preprocess, 82.2ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 14 persons, 3 backpacks, 84.6ms

Speed: 1.8ms preprocess, 84.6ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 12 persons, 2 backpacks, 83.4ms

Speed: 2.4ms preprocess, 83.4ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 14 persons, 2 backpacks, 82.7ms

Speed: 1.6ms preprocess, 82.7ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 11 persons, 2 backpacks, 1 cup, 81.2ms

Speed: 2.0ms preprocess, 81.2ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 11 persons, 2 backpacks, 1 cup, 83.1ms

Speed: 2.3ms preprocess, 83.1ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 3 backpacks, 82.7ms

Speed: 2.3ms preprocess, 82.7ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 19 persons, 3 backpacks, 83.0ms

Speed: 2.3ms preprocess, 83.0ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 2 backpacks, 84.6ms

Speed: 2.1ms preprocess, 84.6ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 19 persons, 3 backpacks, 84.1ms

Speed: 2.3ms preprocess, 84.1ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 2 backpacks, 1 handbag, 84.9ms

Speed: 2.5ms preprocess, 84.9ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

127.0.0.1:5500/task1.html 10/13

0: 384x640 15 persons, 4 backpacks, 87.5ms

Speed: 2.3ms preprocess, 87.5ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 1 backpack, 88.3ms

Speed: 2.3ms preprocess, 88.3ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 2 backpacks, 89.3ms

Speed: 1.7ms preprocess, 89.3ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 17 persons, 1 backpack, 89.4ms

Speed: 2.3ms preprocess, 89.4ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 86.2ms

Speed: 2.5ms preprocess, 86.2ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 2 backpacks, 85.6ms

Speed: 1.8ms preprocess, 85.6ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 17 persons, 88.4ms

Speed: 2.3ms preprocess, 88.4ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 19 persons, 2 backpacks, 1 chair, 82.9ms

Speed: 1.8ms preprocess, 82.9ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 1 backpack, 84.5ms

Speed: 2.2ms preprocess, 84.5ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 18 persons, 2 backpacks, 85.4ms

Speed: 2.7ms preprocess, 85.4ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 17 persons, 2 backpacks, 85.7ms

Speed: 2.3ms preprocess, 85.7ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 2 backpacks, 83.0ms

Speed: 2.3ms preprocess, 83.0ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 15 persons, 1 backpack, 1 handbag, 82.0ms

Speed: 2.4ms preprocess, 82.0ms inference, 1.2ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 16 persons, 1 backpack, 4 handbags, 107.6ms

Speed: 2.3ms preprocess, 107.6ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 14 persons, 1 backpack, 1 handbag, 84.1ms

Speed: 1.7ms preprocess, 84.1ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

127.0.0.1:5500/task1.html 11/13

- 0: 384x640 13 persons, 1 backpack, 5 handbags, 1 tie, 86.2ms Speed: 2.1ms preprocess, 86.2ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 13 persons, 1 backpack, 4 handbags, 84.3ms Speed: 1.8ms preprocess, 84.3ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 13 persons, 2 backpacks, 3 handbags, 82.1ms Speed: 1.6ms preprocess, 82.1ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 13 persons, 2 backpacks, 2 handbags, 83.4ms Speed: 1.7ms preprocess, 83.4ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 10 persons, 1 backpack, 2 handbags, 81.5ms Speed: 1.9ms preprocess, 81.5ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 13 persons, 2 backpacks, 1 handbag, 82.4ms Speed: 2.6ms preprocess, 82.4ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 12 persons, 2 backpacks, 2 handbags, 82.6ms Speed: 1.6ms preprocess, 82.6ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 10 persons, 3 backpacks, 1 handbag, 1 cell phone, 92.1ms Speed: 1.7ms preprocess, 92.1ms inference, 1.3ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 9 persons, 2 backpacks, 1 cell phone, 85.1ms Speed: 2.3ms preprocess, 85.1ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 11 persons, 1 backpack, 83.5ms Speed: 2.2ms preprocess, 83.5ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 12 persons, 2 backpacks, 84.9ms Speed: 2.3ms preprocess, 84.9ms inference, 0.8ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 15 persons, 2 backpacks, 81.5ms Speed: 1.9ms preprocess, 81.5ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 12 persons, 2 backpacks, 1 tie, 84.2ms Speed: 2.0ms preprocess, 84.2ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 13 persons, 4 backpacks, 83.8ms Speed: 2.3ms preprocess, 83.8ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)
- 0: 384x640 12 persons, 1 horse, 1 backpack, 1 handbag, 86.5ms Speed: 2.2ms preprocess, 86.5ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

127.0.0.1:5500/task1.html 12/13

0: 384x640 15 persons, 2 backpacks, 3 handbags, 1 tie, 88.7ms Speed: 2.4ms preprocess, 88.7ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

0: 384x640 13 persons, 1 backpack, 1 handbag, 84.9ms Speed: 1.8ms preprocess, 84.9ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

✓ Saved 62 annotated frames in /annotated_frames/

127.0.0.1:5500/task1.html 13/13