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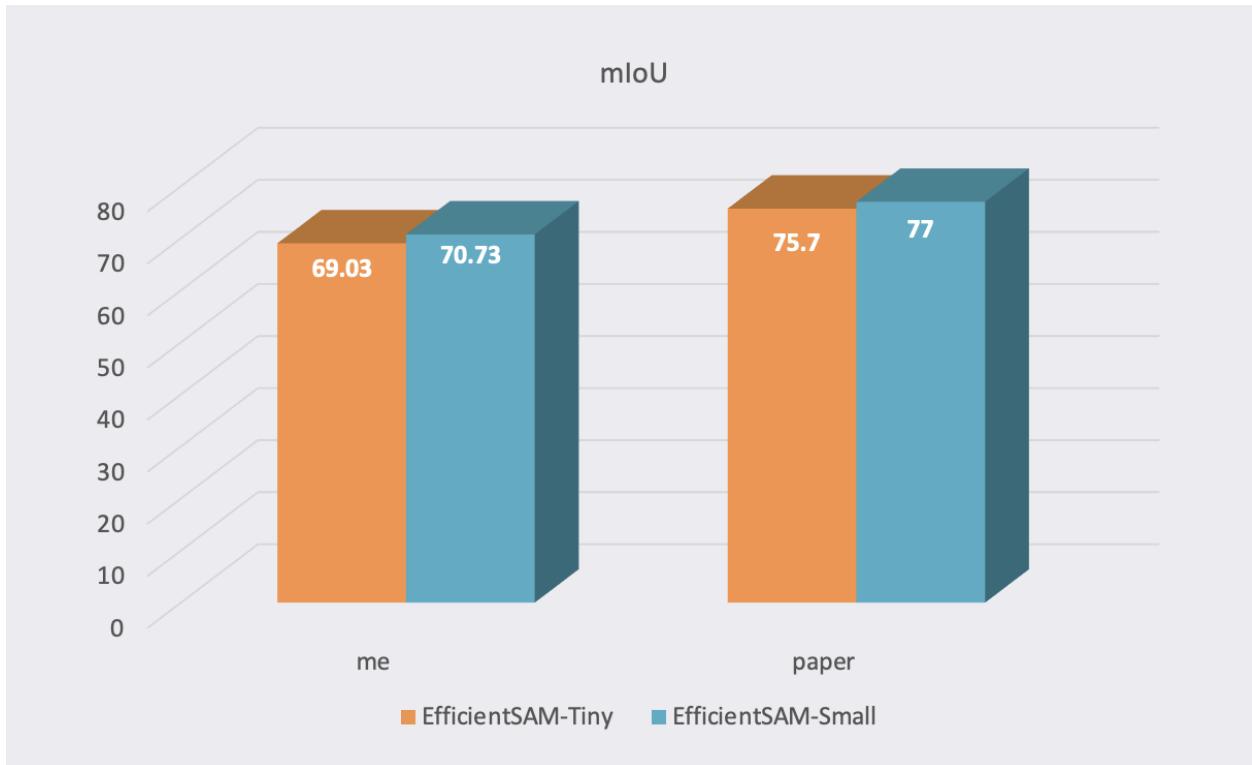
Batch of 2026

Institute Roll no.- **CS24MTECH14001**

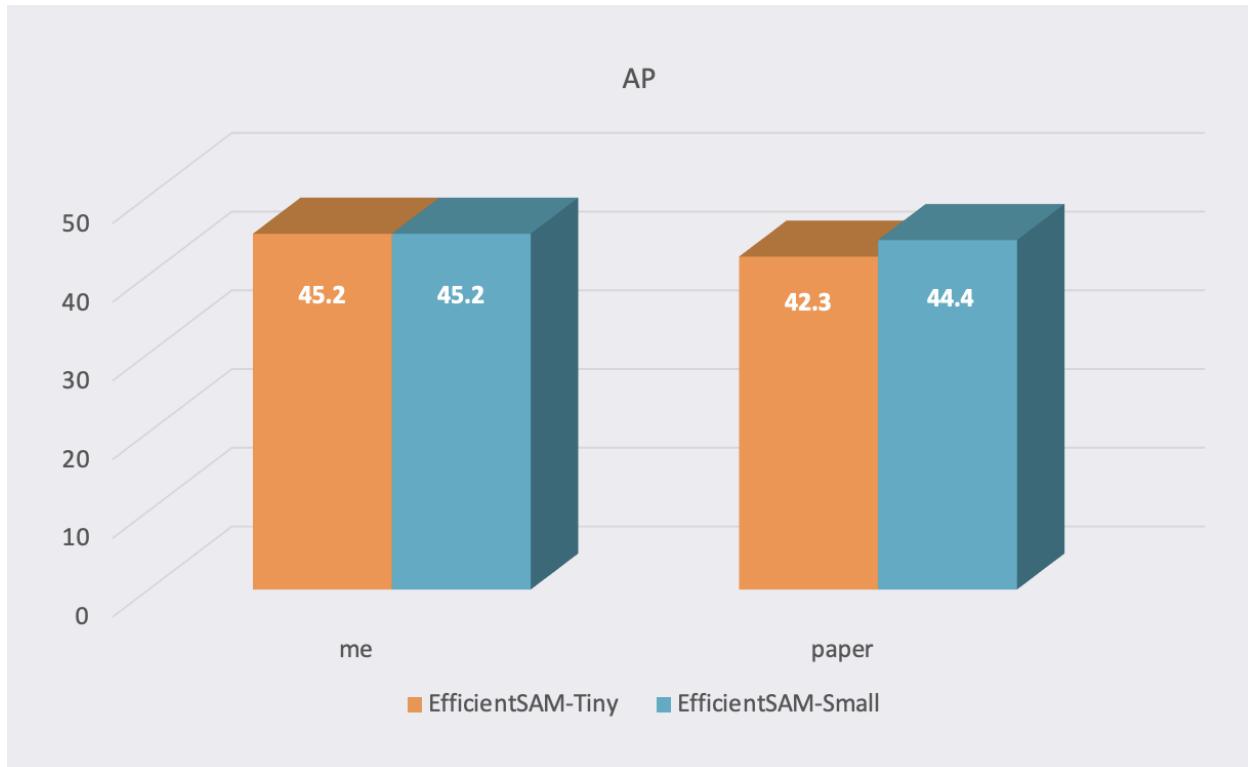
Result files

Reproduced Results on COCO Dataset

1. Comparison of mIoU on EfficientSAM-Tiny v/s EfficientSAM-Small

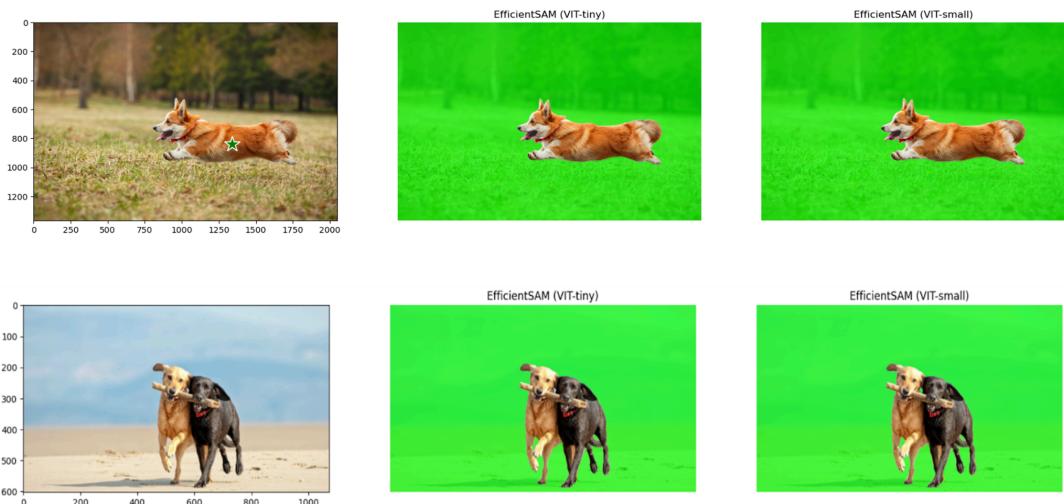


2. Comparison of AP on EfficientSAM-Tiny v/s EfficientSAM-Small

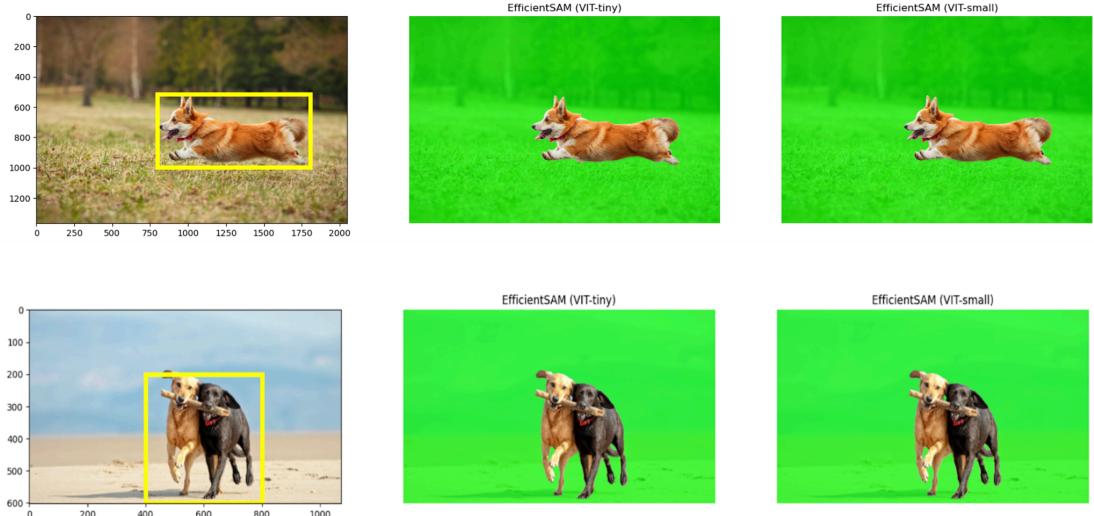


3. Segmentation Results on EfficientSAM-Tiny v/s EfficientSAM-Small

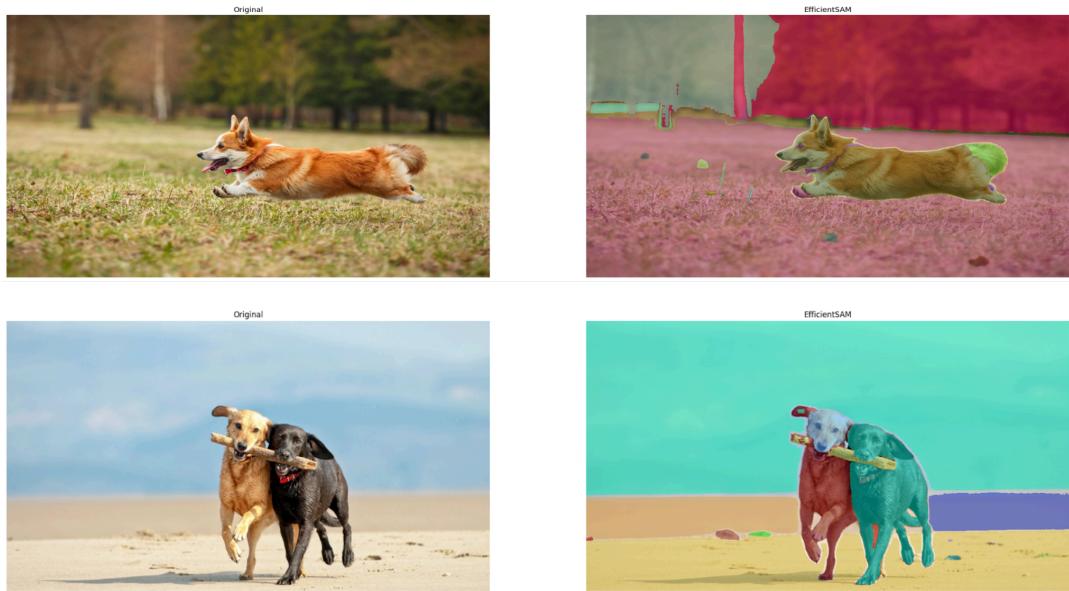
Point Prompts:



Box Prompts:



Segment Everything:



4. Output Screenshots of EfficientSAM-Tiny on COCO

```
== EVALUATING MODEL: efficientsam_ti ===
Infer-efficientsam_ti: 100% | 5000/5000 [1:48:39<00:00, 1.30s/it]
[efficientsam_ti] Mean IoU (top-1) across 36334 objects: 0.6903
Loading and preparing results...
DONE (t=0.41s)
creating index...
index created!
Running per image evaluation...
Evaluate annotation type *segm*
DONE (t=11.33s).
Accumulating evaluation results...
DONE (t=1.30s).
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.452
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.765
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.461
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.380
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.490
Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.573
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 1 ] = 0.330
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 10 ] = 0.517
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.526
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.452
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.565
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.625
```

5. Output Screenshots of EfficientSAM-Small on COCO

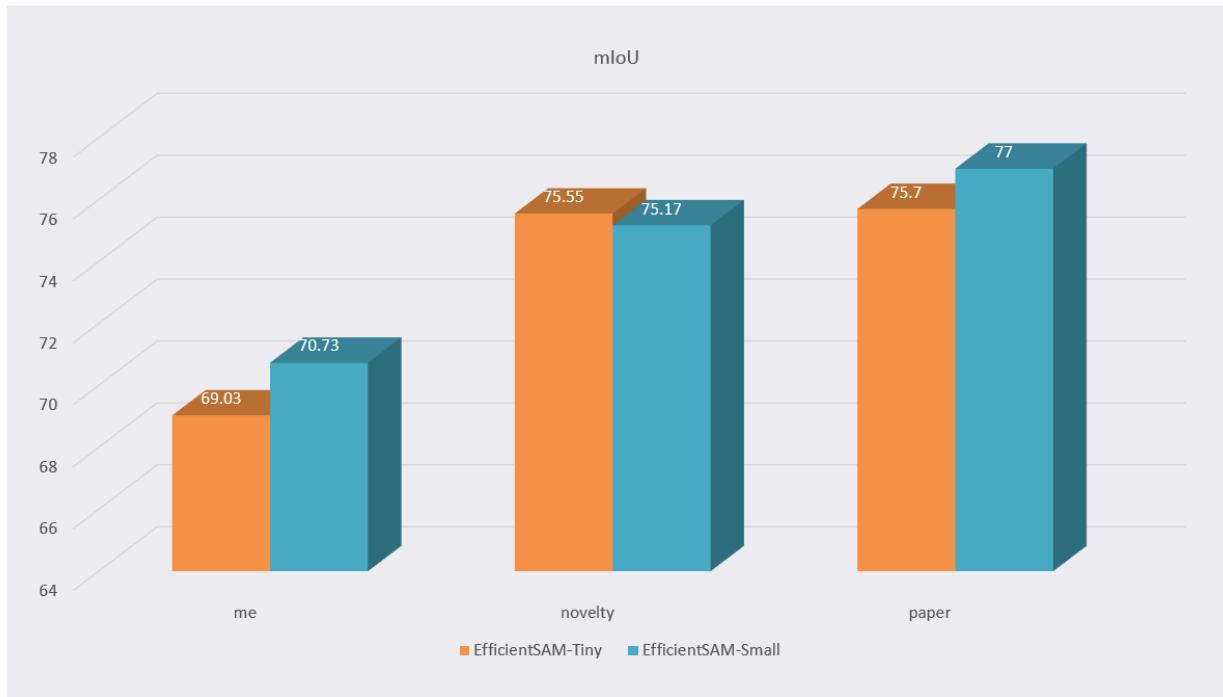
```
== EVALUATING MODEL: efficientsam_s ===
Infer-efficientsam_s: 100% | 5000/5000 [3:36:22<00:00, 2.60s/it]
[efficientsam_s] Mean IoU (top-1) across 36334 objects: 0.7073
Loading and preparing results...
DONE (t=0.41s)
creating index...
index created!
Running per image evaluation...
Evaluate annotation type *segm*
DONE (t=10.40s).
Accumulating evaluation results...
DONE (t=1.32s).
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.452
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.752
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.471
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.382
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.490
Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.571
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 1 ] = 0.341
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 10 ] = 0.541
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.550
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.464
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.593
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.654
```

6. Output Screenshots of EfficientSAM-Small on LVIS

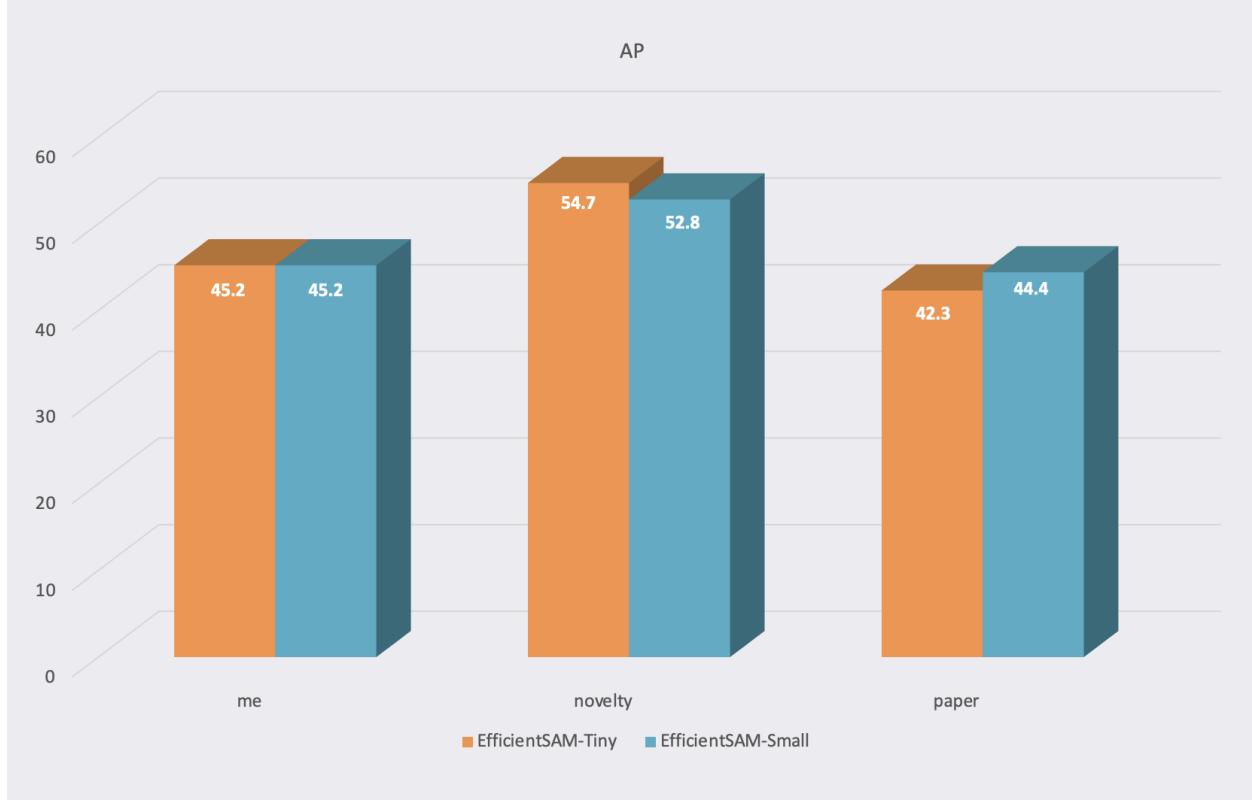
```
===== EVALUATION SUMMARY =====
Model: EfficientSAM efficient.sam_s
Prompt type: two_points
Number of images: 19626
Number of predictions: 244445
Mean IoU: 0.6654
Evaluation time: 48359.19 seconds
```

Novelty Results: COCO Dataset

7. Comparisons of mIoU on EfficientSAM-Tiny v/s EfficientSAM-Small



8. Comparisons of AP on EfficientSAM-Tiny v/s EfficientSAM-Small



9. Output Screenshots of EfficientSAM-Tiny on COCO with Novelty

```
== EVALUATING MODEL: efficientsam_ti ==
- Running multi-adaptive prompt refinement
MultiAdaptiveInfer-efficientsam ti: 100%|██████████| 5000/5000 [5:49:16<00:00,  4.19s/it]
[efficientsam_ti] Mean IoU (top-1) across 36334 objects: 0.7555

Adaptive Prompt Refinement COCO metrics:
Loading and preparing results...
DONE (t=0.42s)
creating index...
index created!
Running per image evaluation...
Evaluate annotation type *segm*
DONE (t=11.43s).
Accumulating evaluation results...
DONE (t=1.33s).
Average Precision (AP) @[ IoU=0.50:0.95 | area=   all | maxDets=100 ] = 0.547
Average Precision (AP) @[ IoU=0.50    | area=   all | maxDets=100 ] = 0.864
Average Precision (AP) @[ IoU=0.75    | area=   all | maxDets=100 ] = 0.588
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.447
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.592
Average Precision (AP) @[ IoU=0.50:0.95 | area=large  | maxDets=100 ] = 0.685
Average Recall  (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=  1 ] = 0.379
Average Recall  (AR) @[ IoU=0.50:0.95 | area=   all | maxDets= 10 ] = 0.602
Average Recall  (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=100 ] = 0.613
Average Recall  (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.514
Average Recall  (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.656
Average Recall  (AR) @[ IoU=0.50:0.95 | area=large  | maxDets=100 ] = 0.731
```

10. Output Screenshots of EfficientSAM-Small on COCO with Novelty

```
==== EVALUATING MODEL: efficientsam_s ====
- Running multi-adaptive prompt refinement
MultiAdaptiveInfer-efficientsam_s: 100%|██████████| 5000/5000 [9:50:14<00:00, 7.08s/it]
[efficientsam_s] Mean IoU (top-1) across 36334 objects: 0.7517

Adaptive Prompt Refinement COCO metrics:
Loading and preparing results...
DONE (t=0.41s)
creating index...
index created!
Running per image evaluation...
Evaluate annotation type *segm*
DONE (t=10.47s).
Accumulating evaluation results...
DONE (t=1.32s).
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.528
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.828
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.572
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.427
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.574
Average Precision (AP) @[ IoU=0.50:0.95 | area=large | maxDets=100 ] = 0.674
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 1 ] = 0.389
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=10 ] = 0.604
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.615
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.502
Average Recall (AR) @[ IoU=0.50:0.95 | area=large | maxDets=100 ] = 0.662
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.742
```