

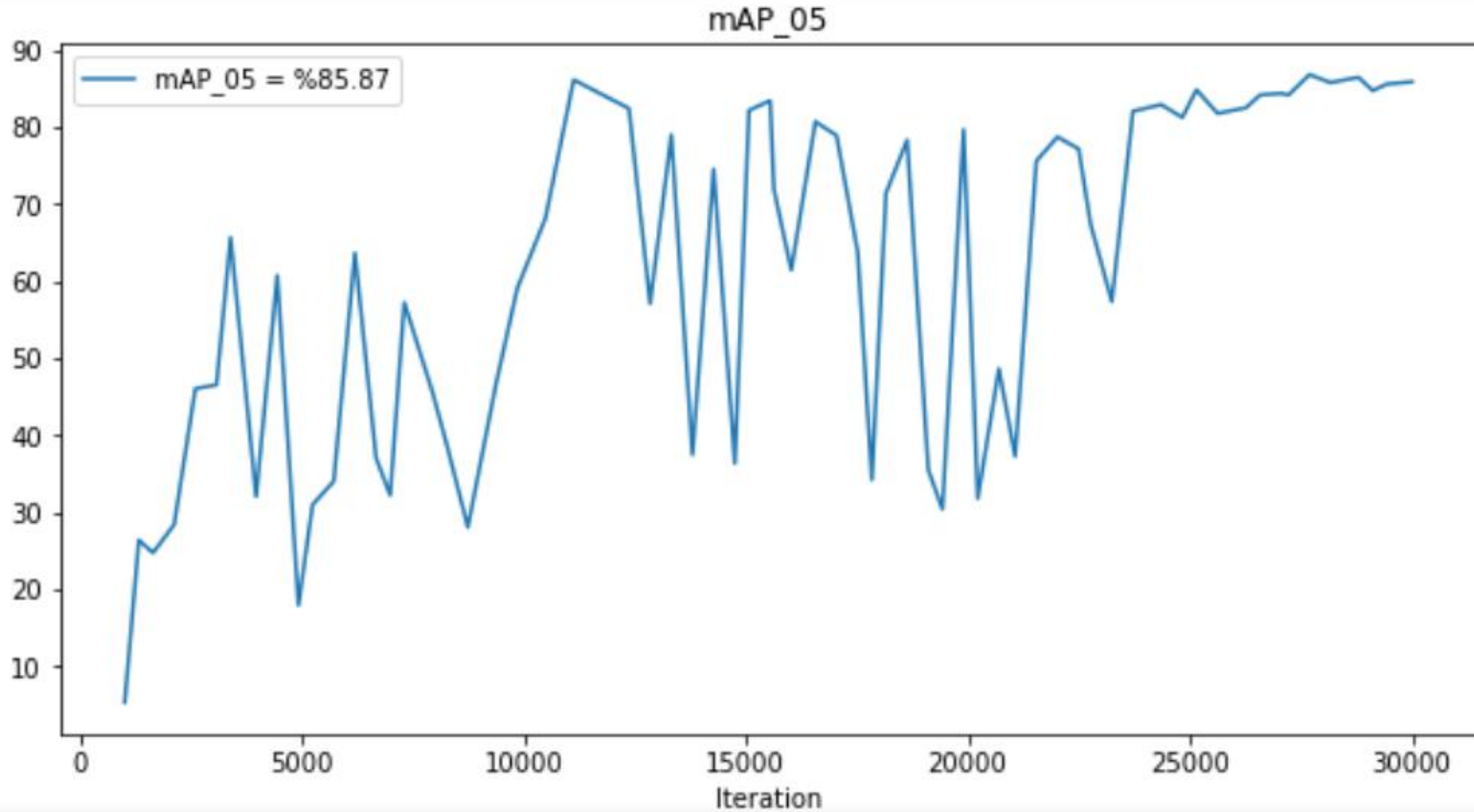
YOLOv4 Case Study

C6-D100 Raporu

Burak Maden

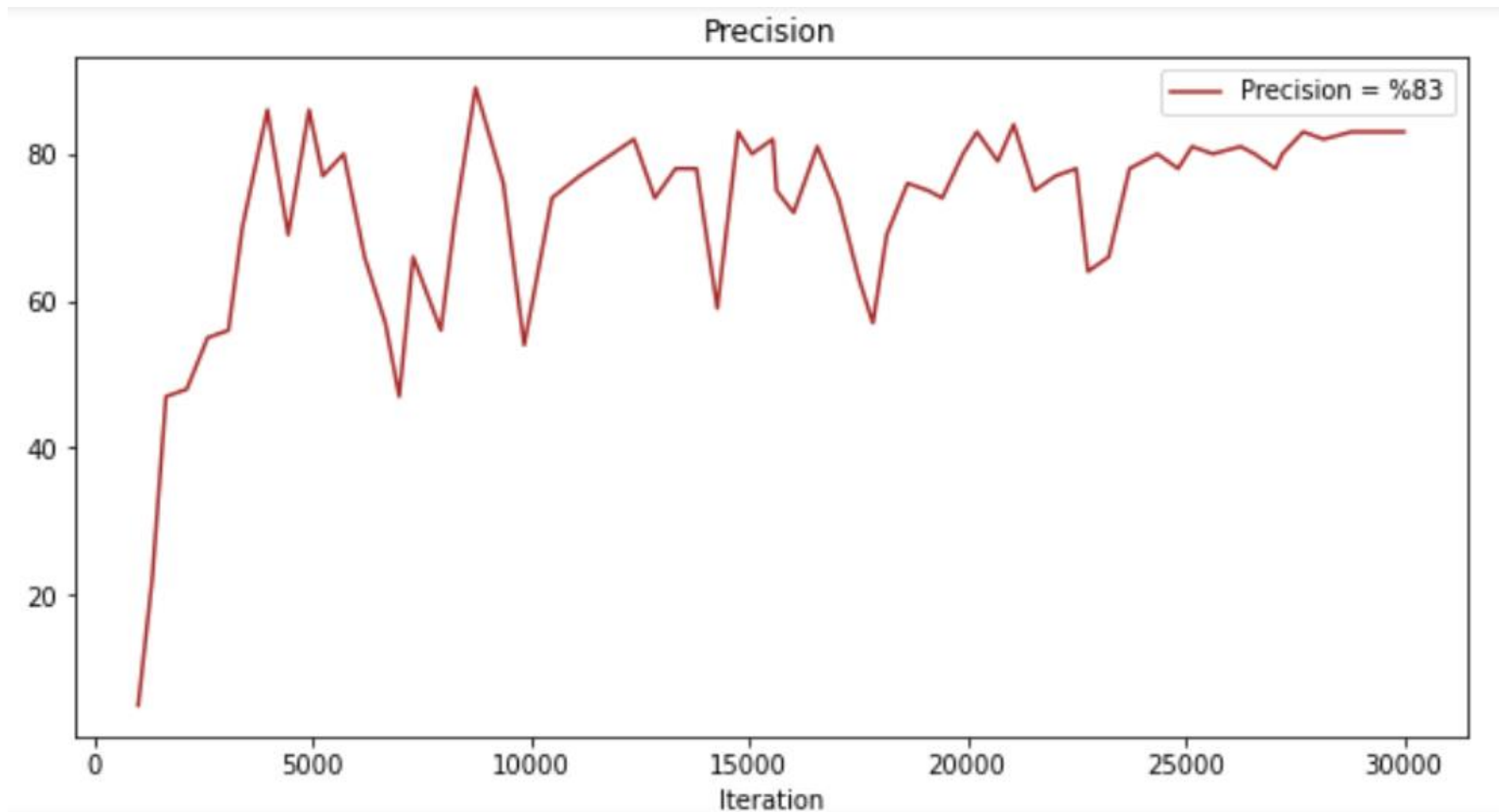
Eğitim Metrikleri

Map@0.5



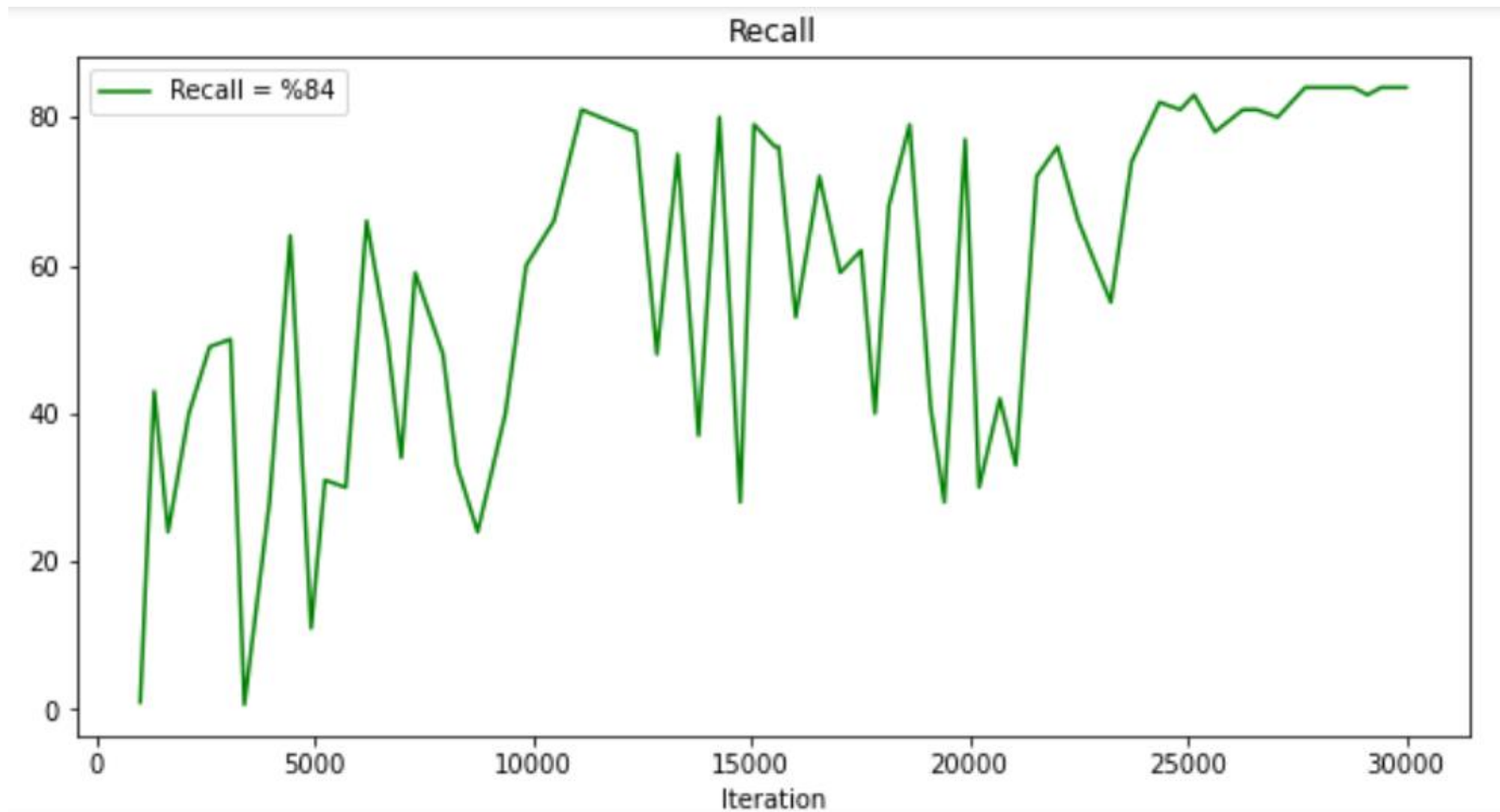


Precision



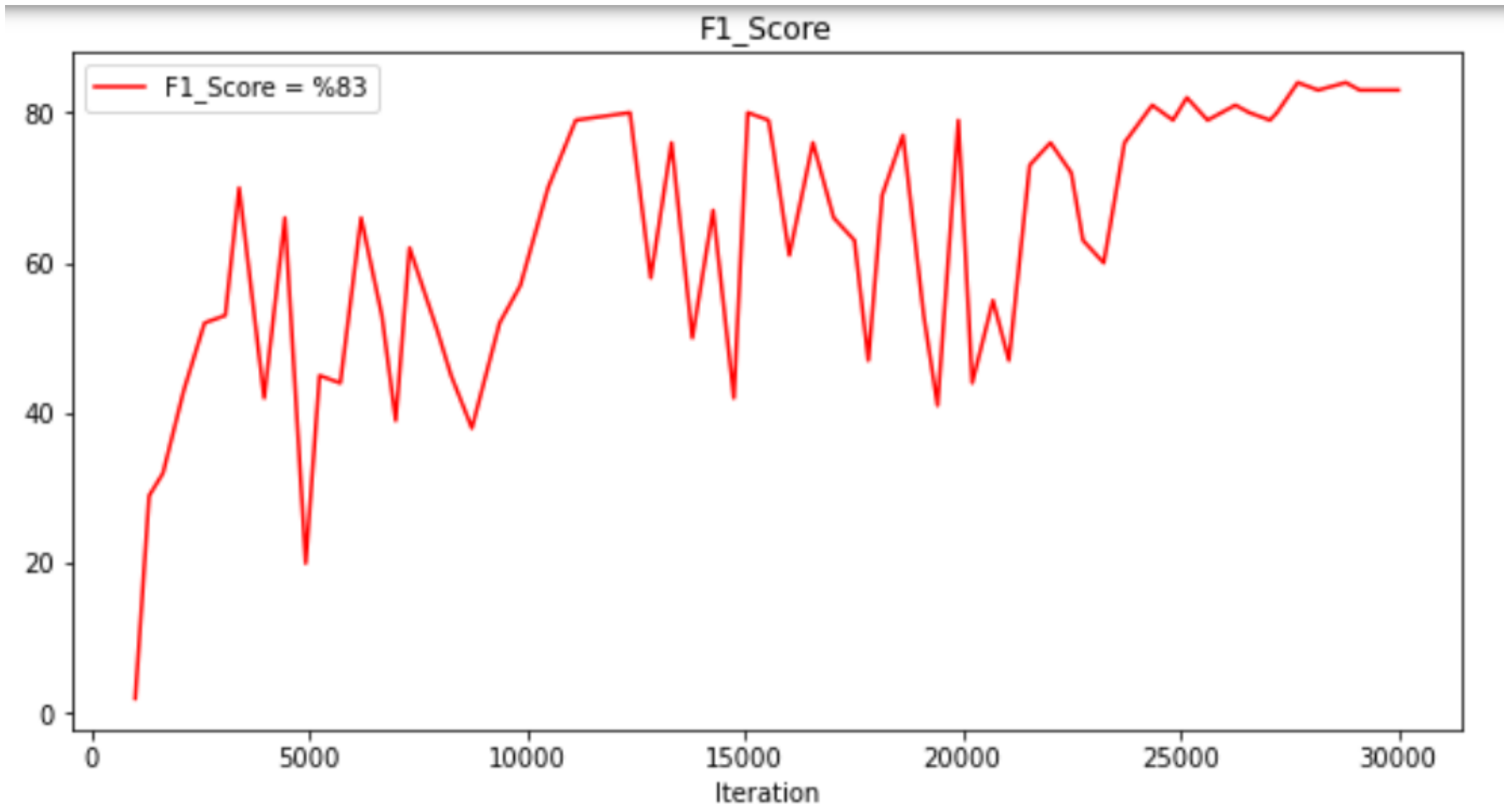


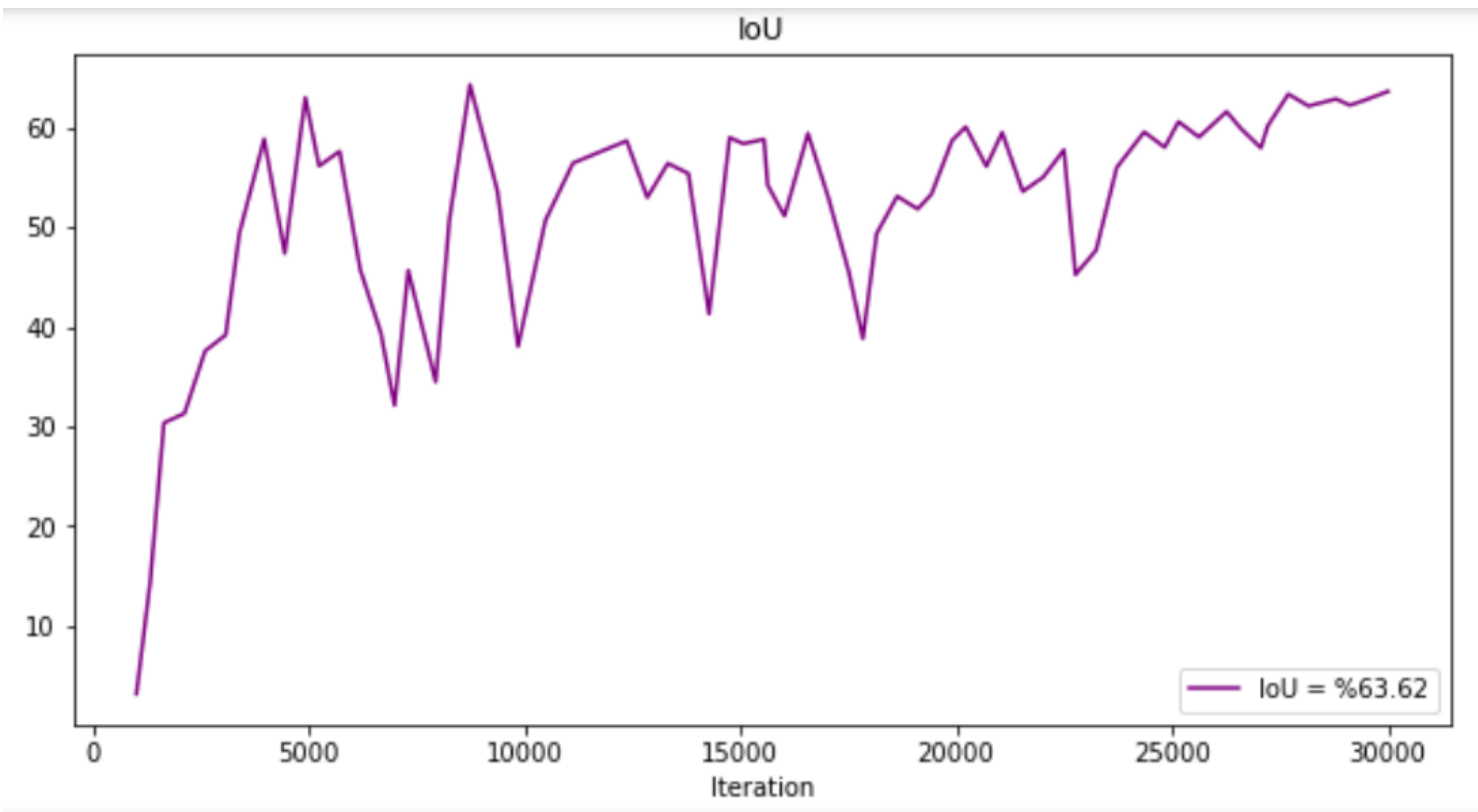
Recall





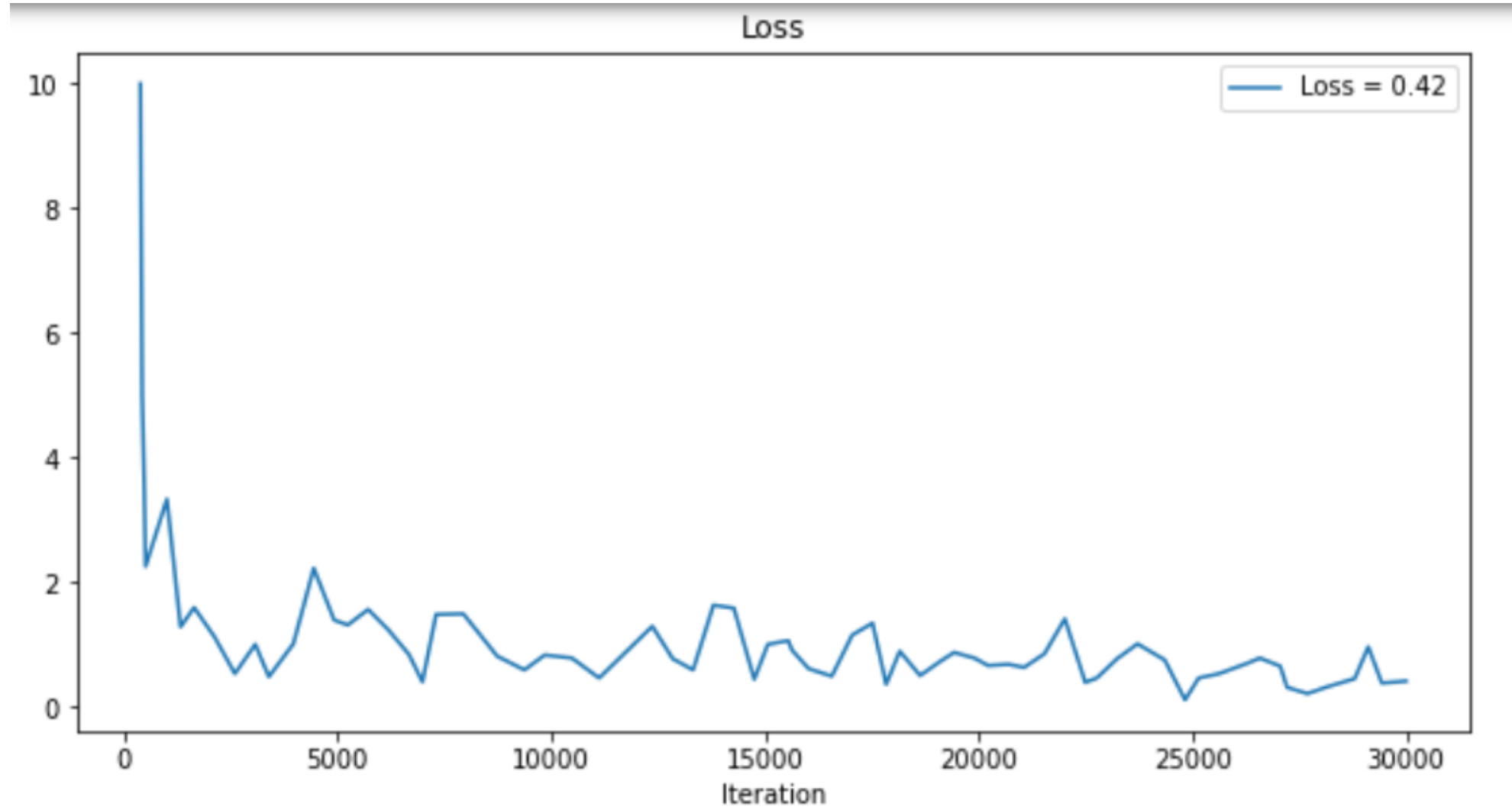
F1-Score







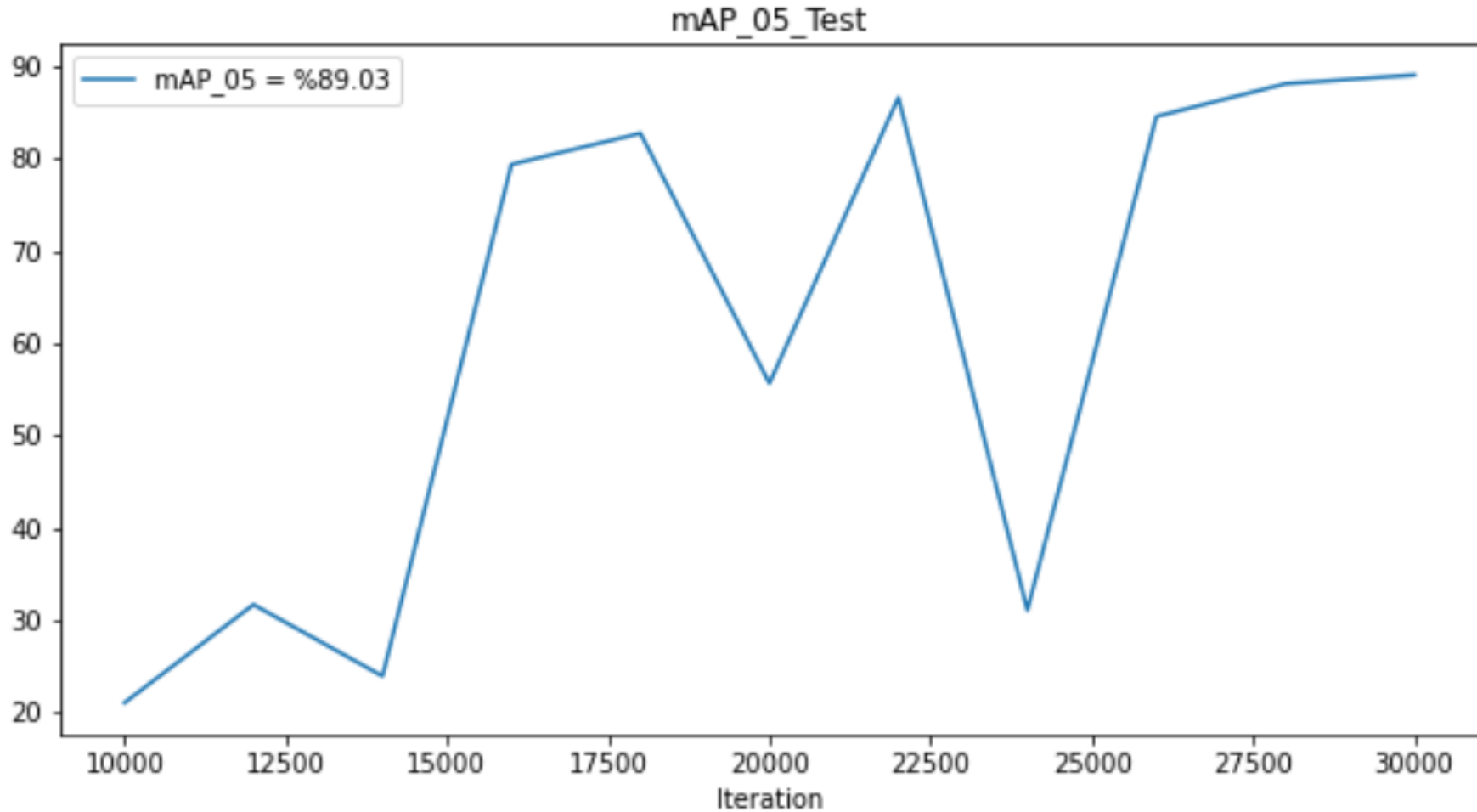
Loss



Test Metrikleri

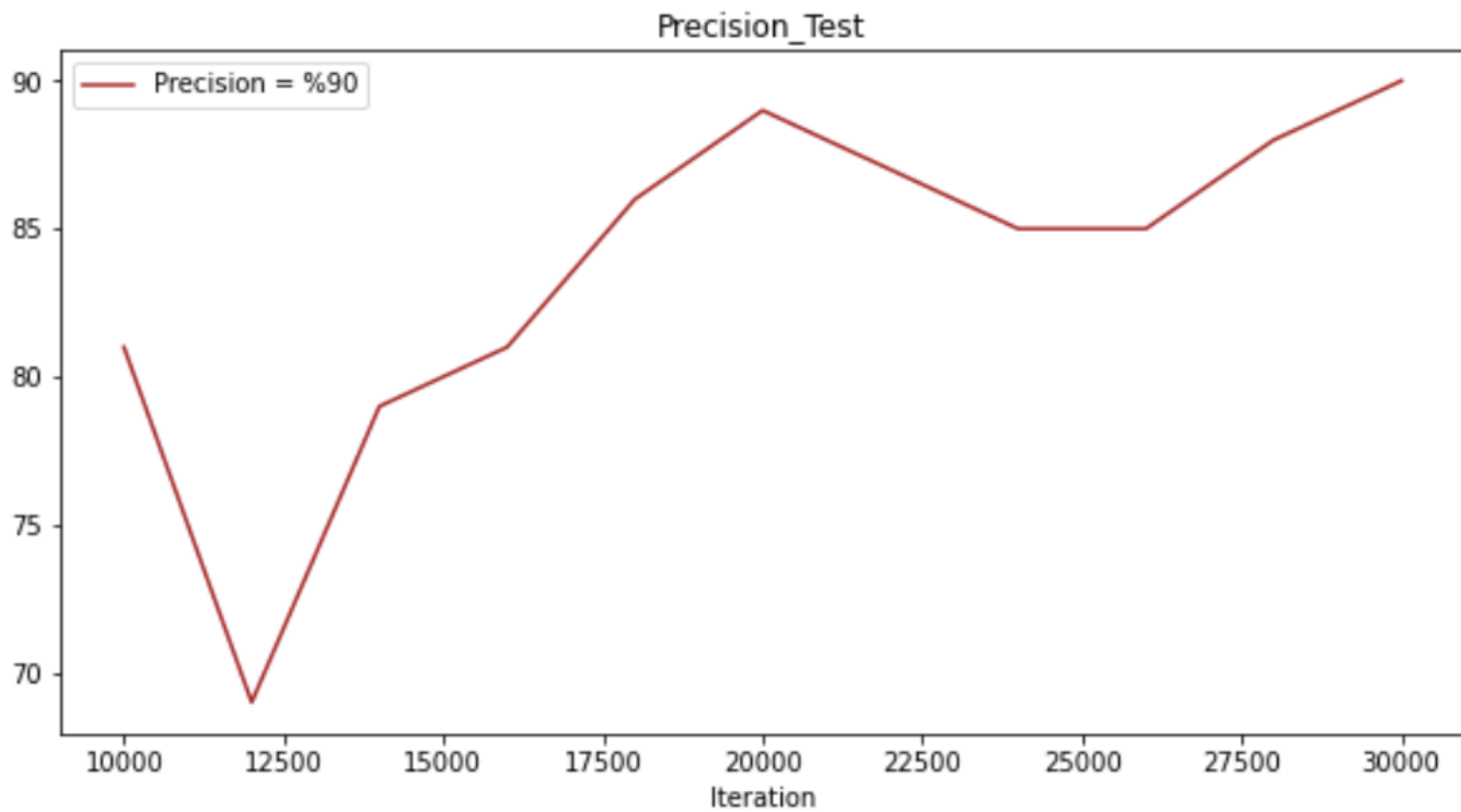


Map@0.5_Test



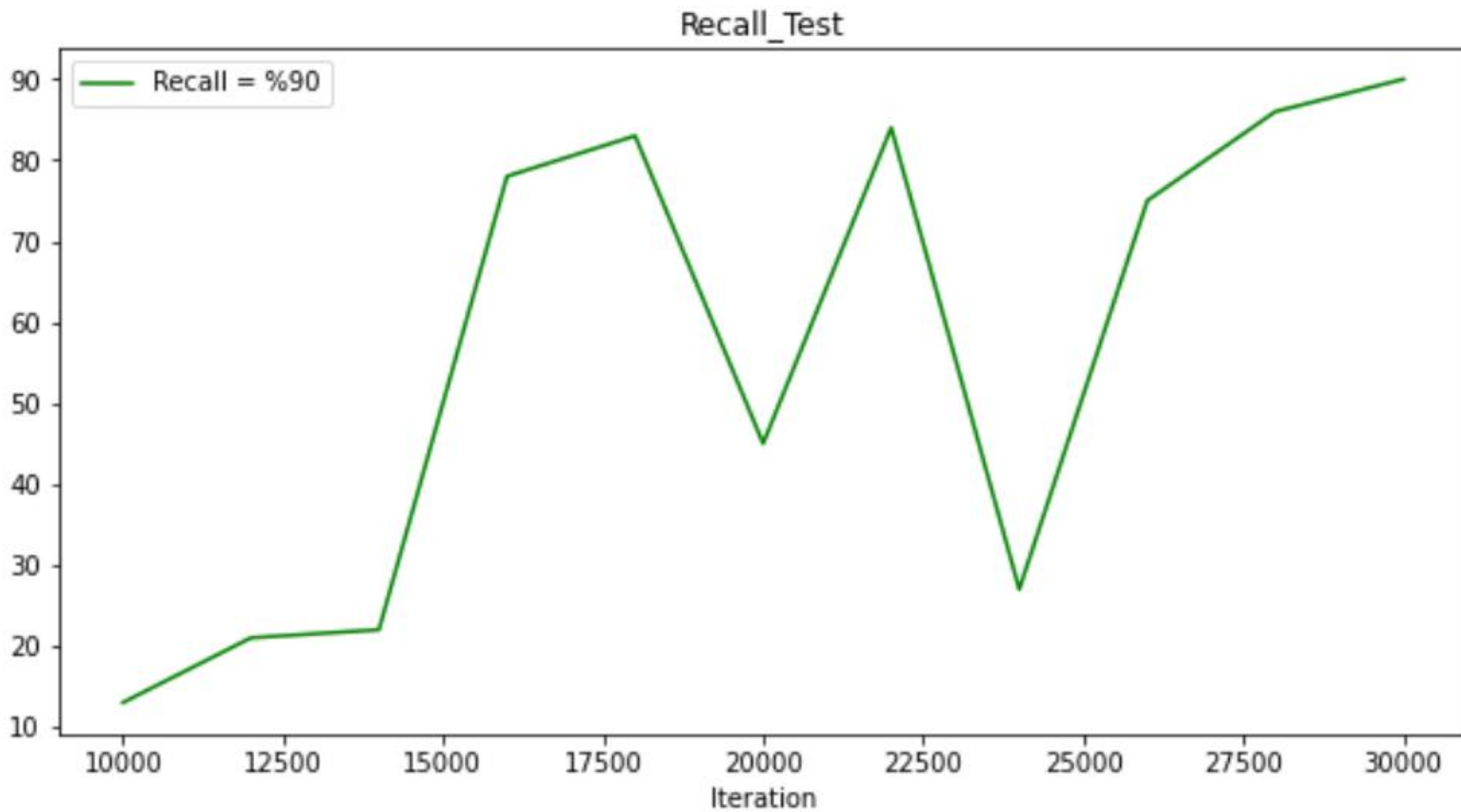


Precision_Test



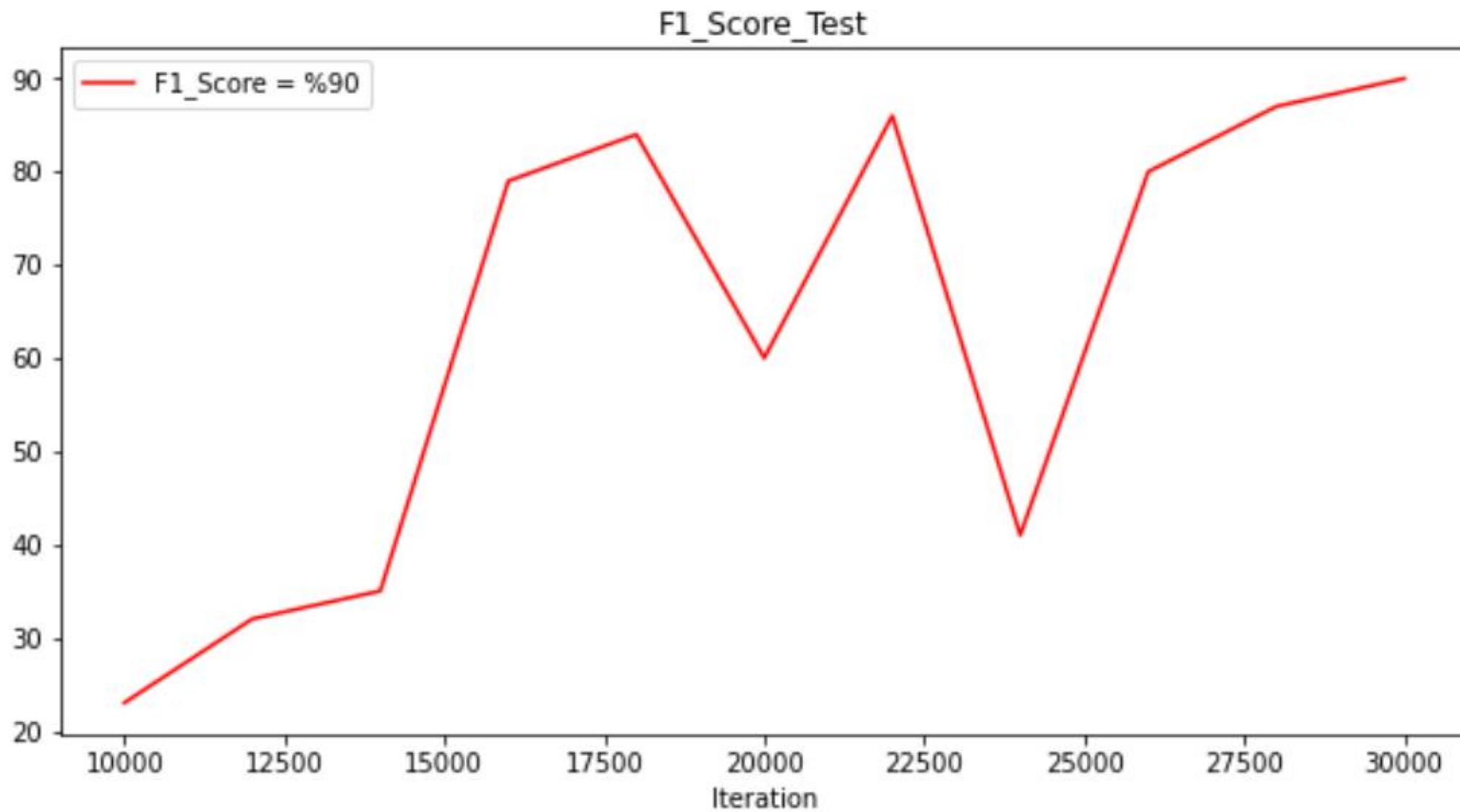


Recall_Test



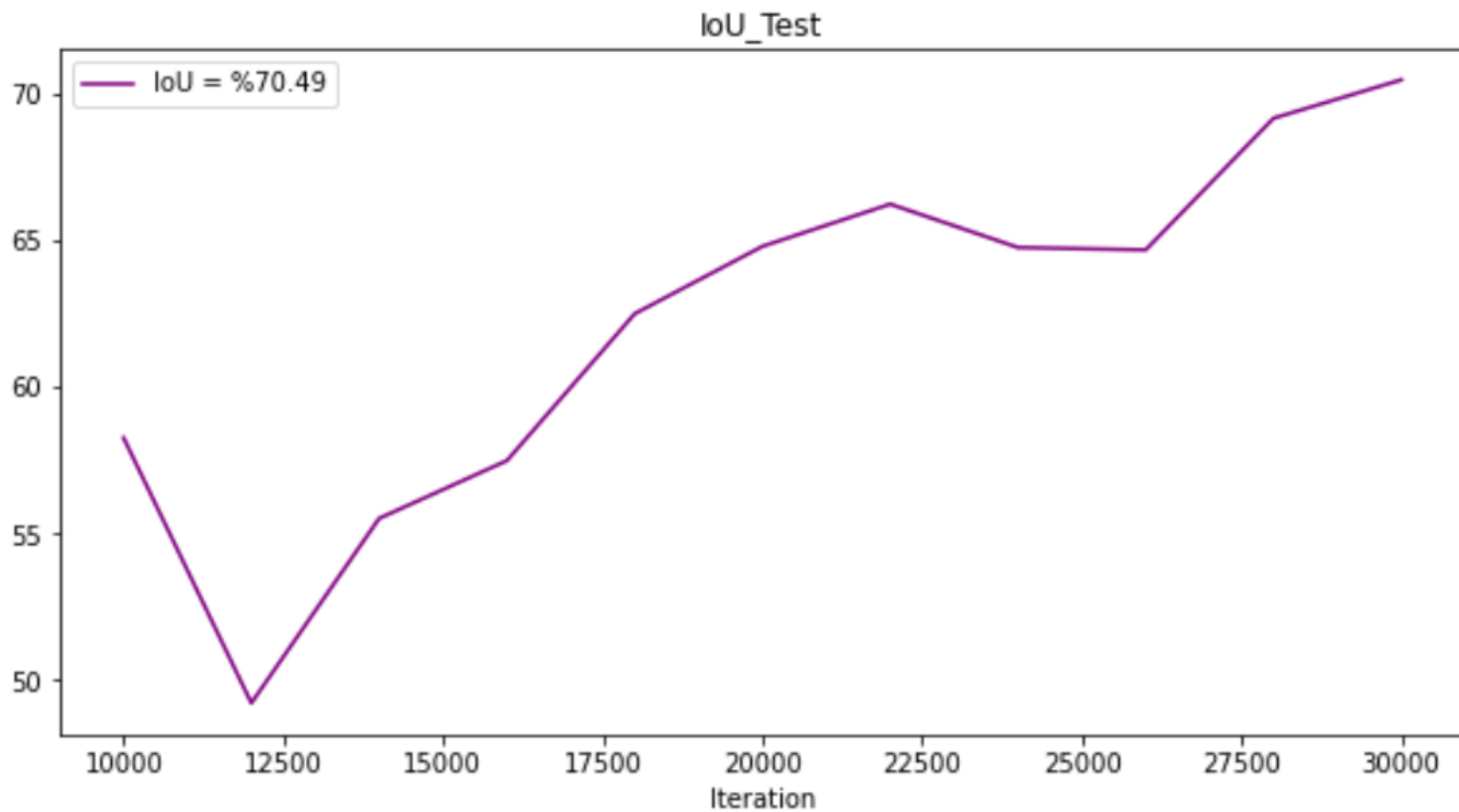


F1_Score_Test





IoU_Test



Best Ağırlık Sonucu

```
Loading weights from /content/drive/MyDrive/darknet/backup/custom-yolov4-detector_best.weights...  
seen 64, trained: 358 K-images (5 Kilo-batches_64)  
Done! Loaded 162 layers from weights-file
```

```
calculation mAP (mean average precision)...
```

```
1188
```

```
detections_count = 2685, unique_truth_count = 1462  
class_id = 0, name = atkiyi_iceri_alma, ap = 96.09%      (TP = 211, FP = 16)  
class_id = 1, name = kirpik, ap = 86.29%                (TP = 315, FP = 64)  
class_id = 2, name = optik_lekesi, ap = 73.97%          (TP = 74, FP = 19)  
class_id = 3, name = taraz, ap = 94.93%                (TP = 271, FP = 13)  
class_id = 4, name = tefe, ap = 95.88%                 (TP = 193, FP = 9)  
class_id = 5, name = yarim_atki, ap = 90.66%           (TP = 233, FP = 30)
```

```
for conf_thresh = 0.40, precision = 0.90, recall = 0.89, F1-score = 0.89
```

```
for conf_thresh = 0.40, TP = 1297, FP = 151, FN = 165, average IoU = 70.14 %
```

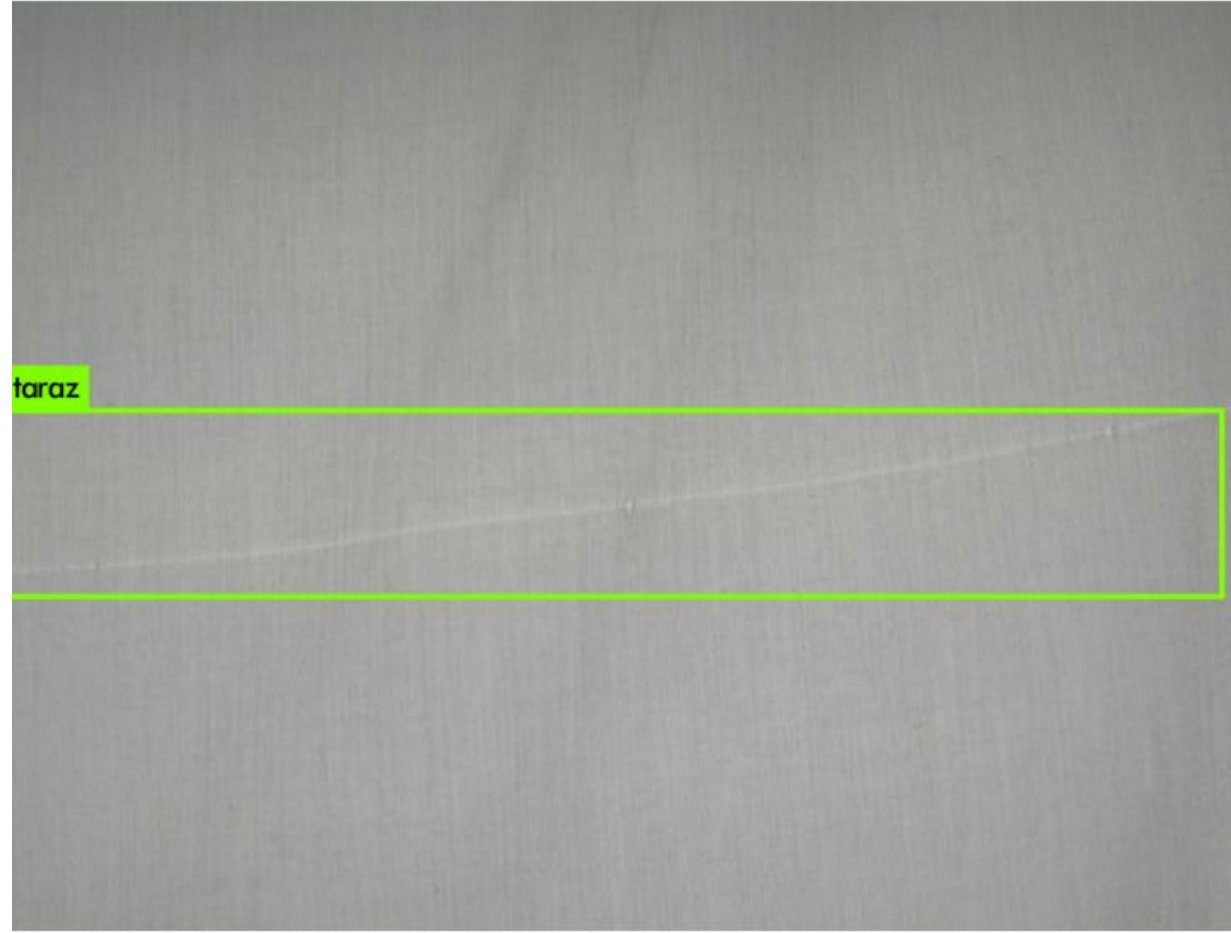
```
IoU threshold = 50 %, used Area-Under-Curve for each unique Recall
```

```
mean average precision (mAP@0.50) = 0.896382, or 89.64 %
```

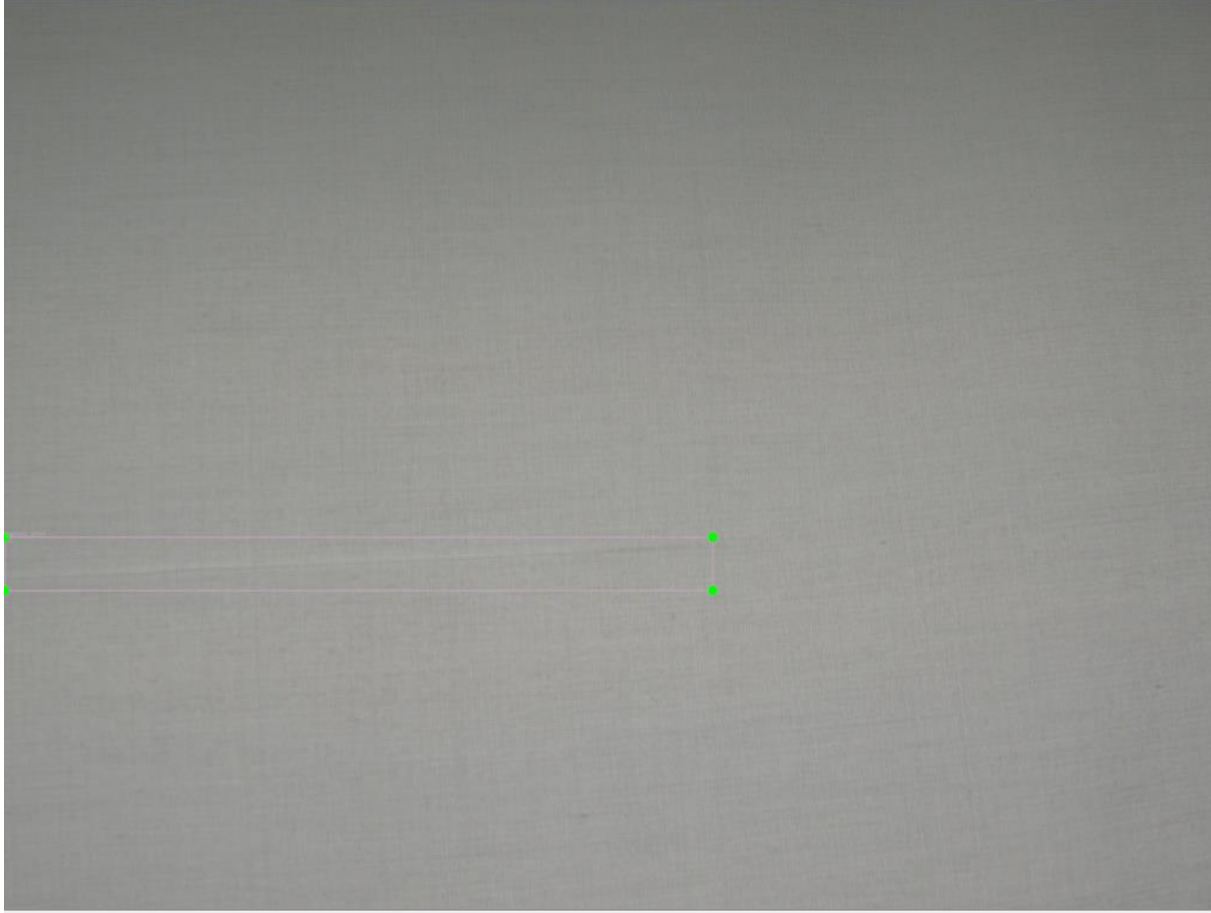
Asıl Veri



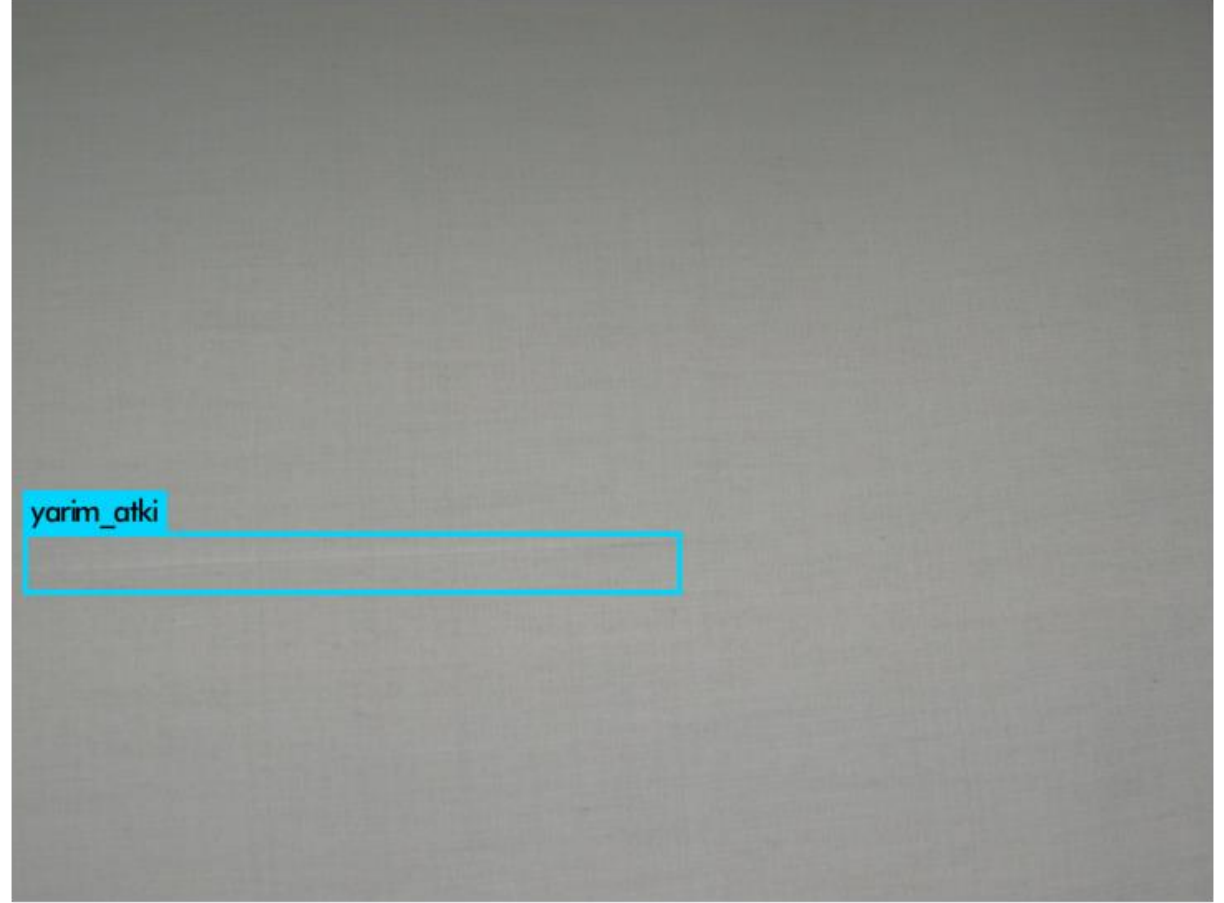
YOLOv4 Sonucu



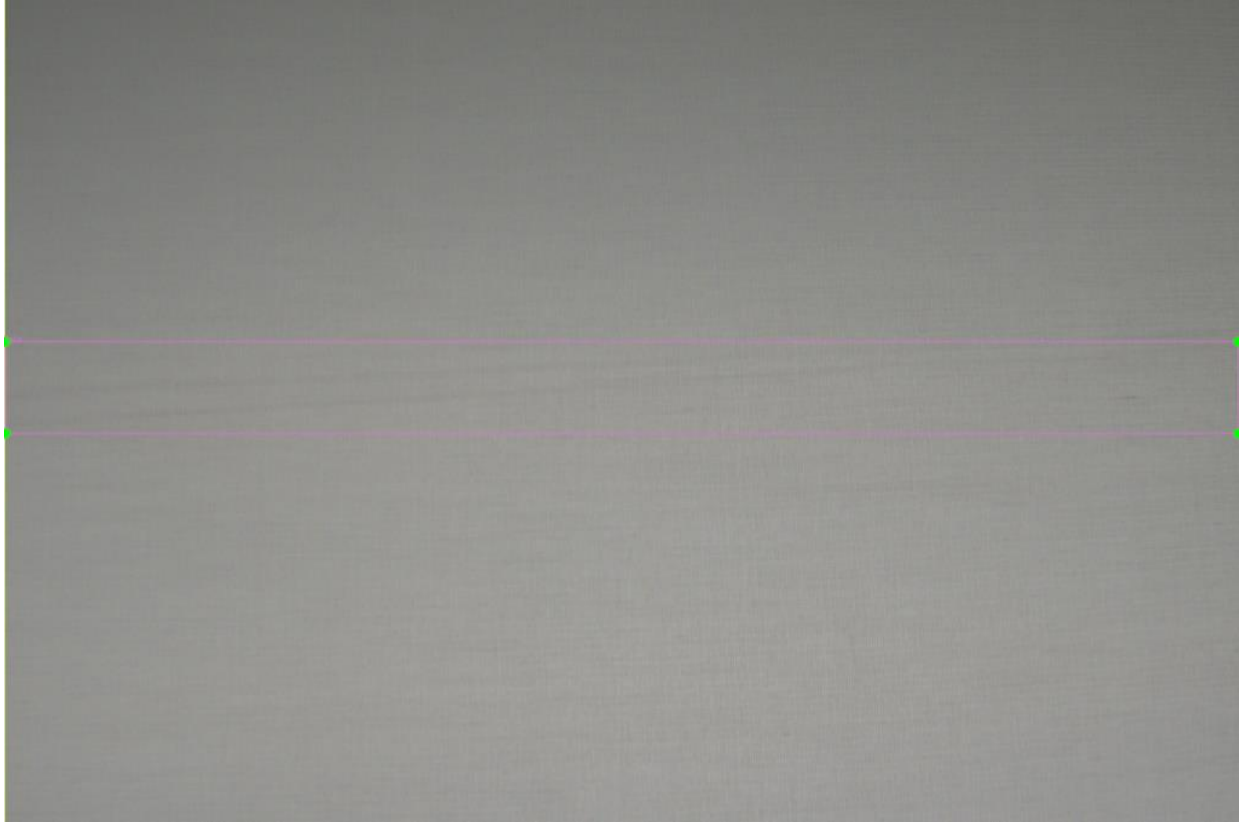
Asıl Veri



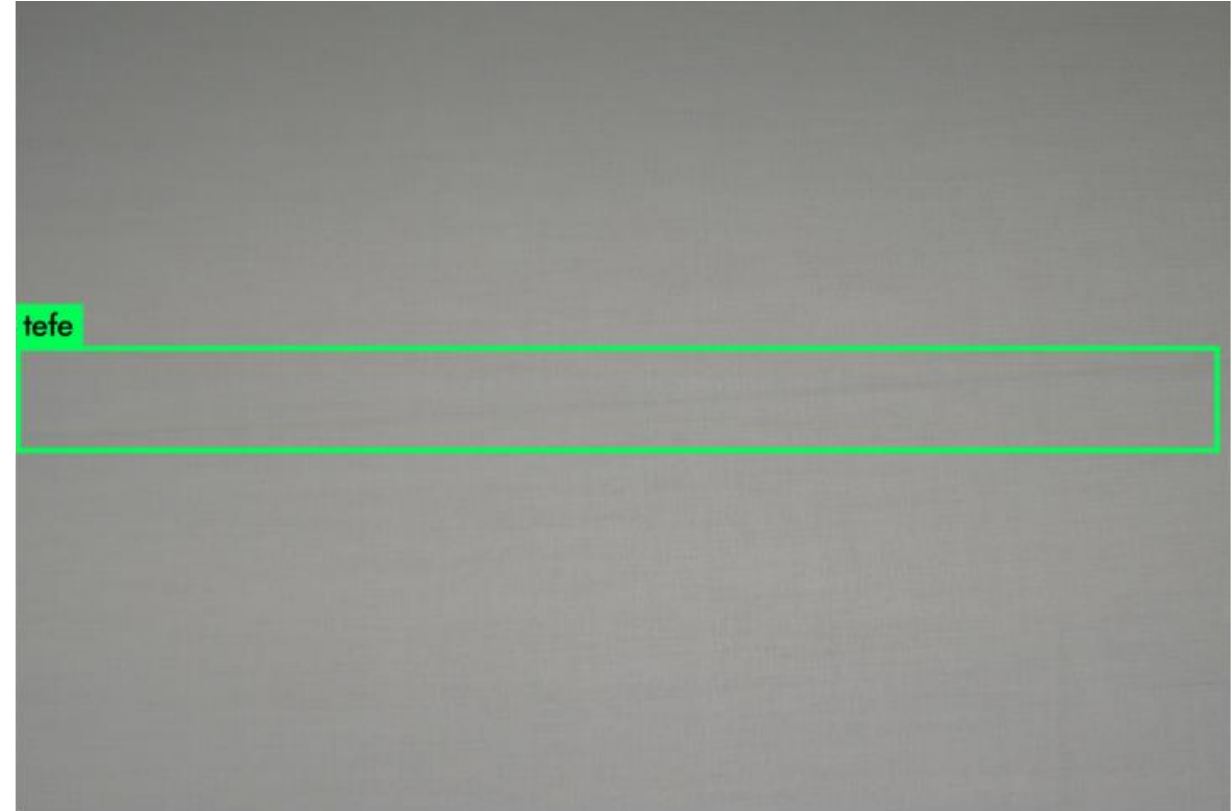
YOLOv4 Sonucu



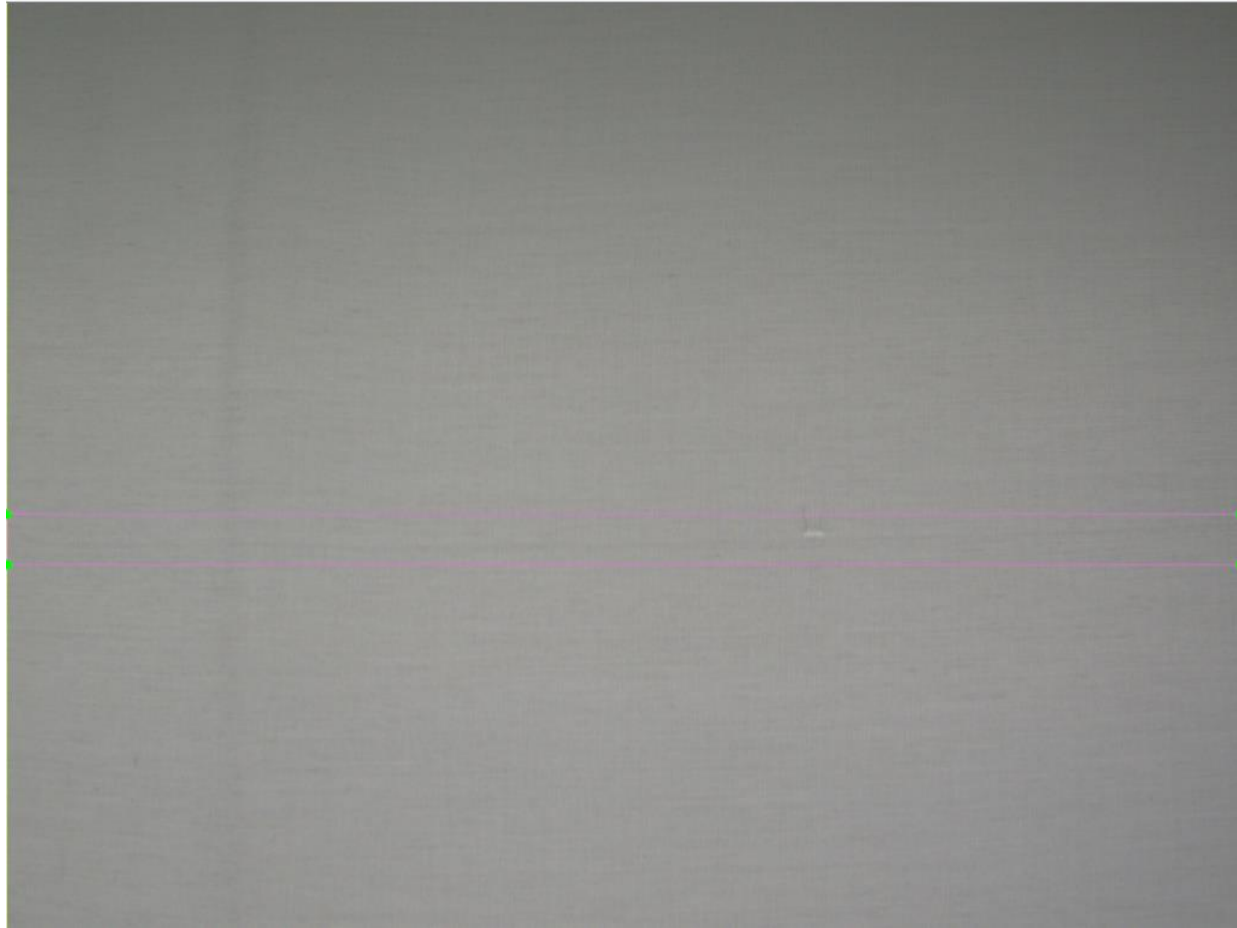
Asıl Veri



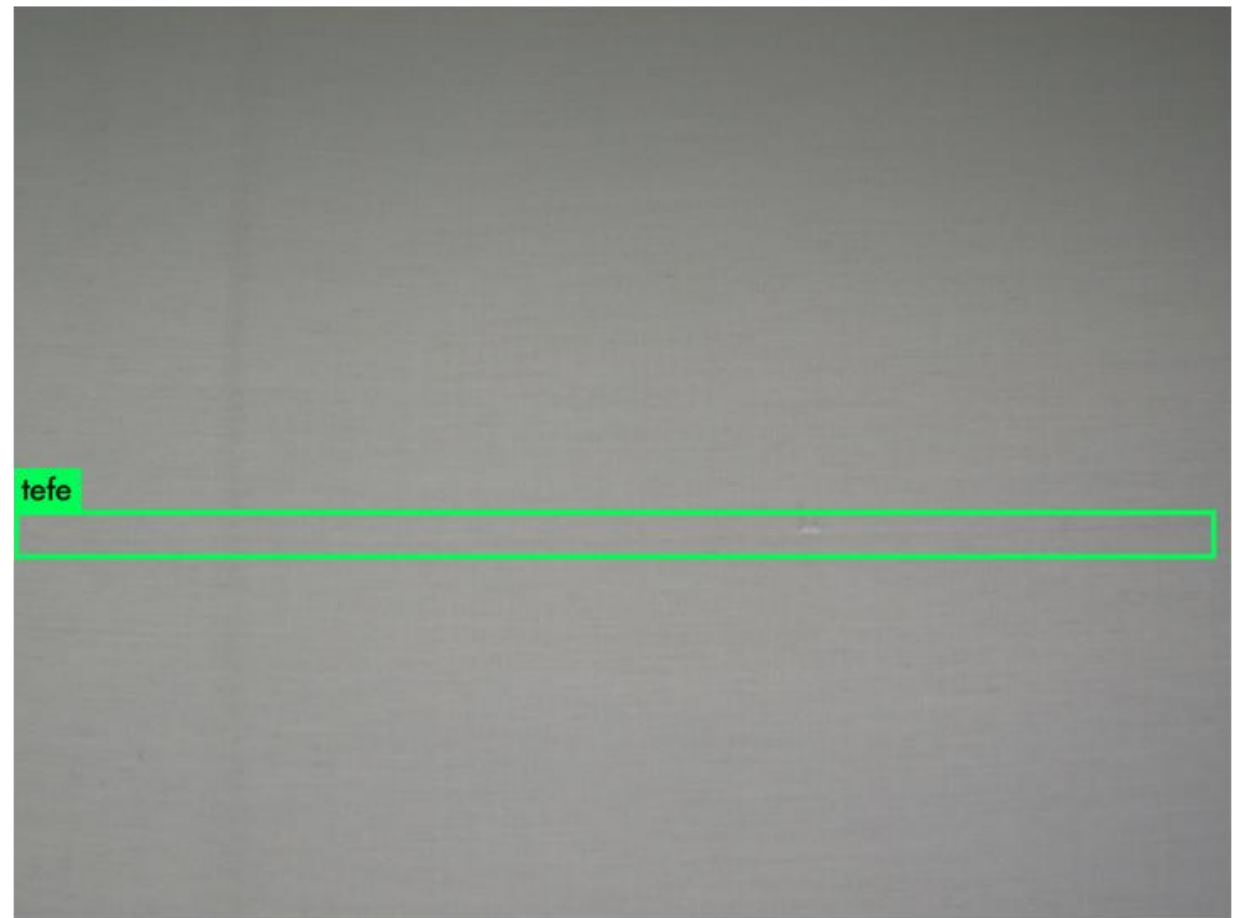
YOLOv4 Sonucu



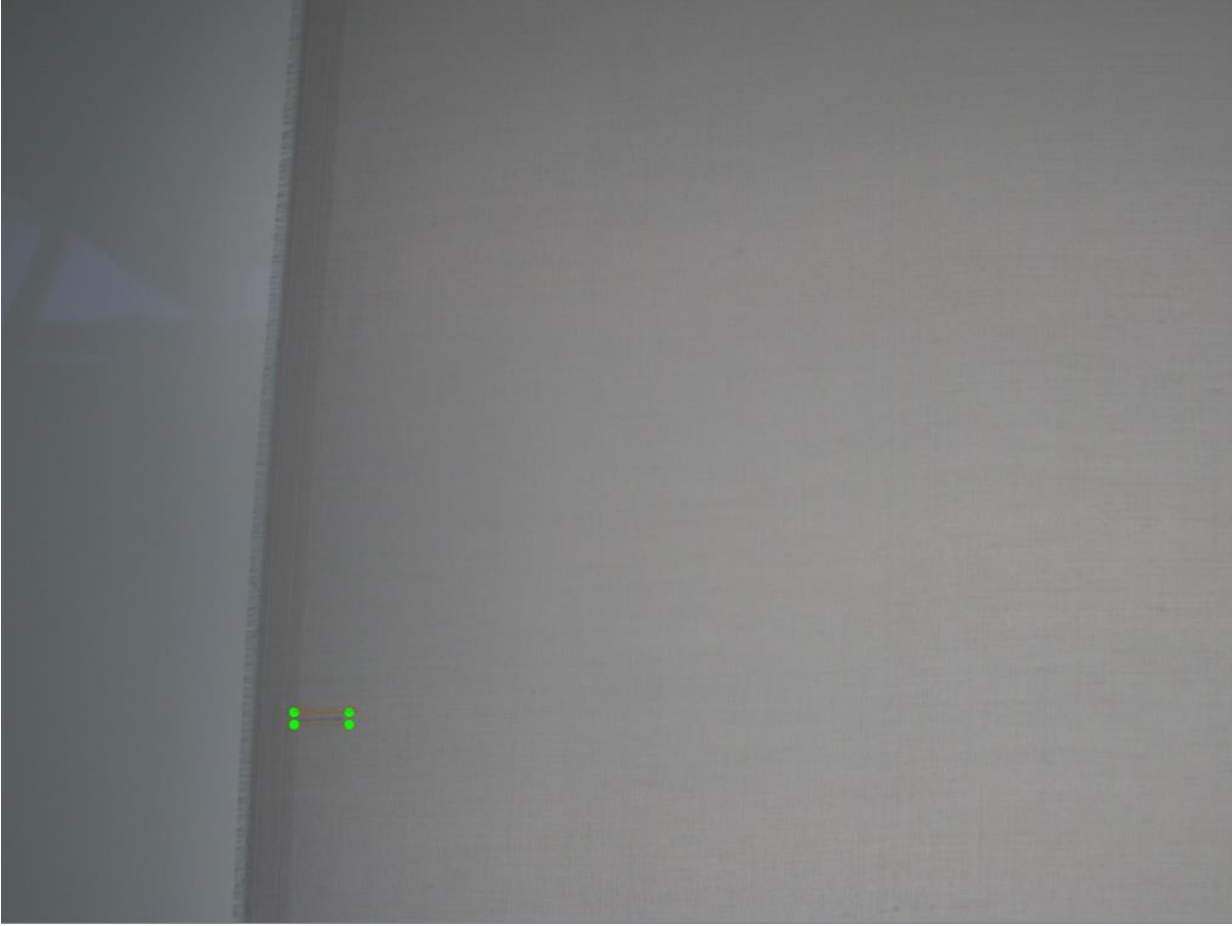
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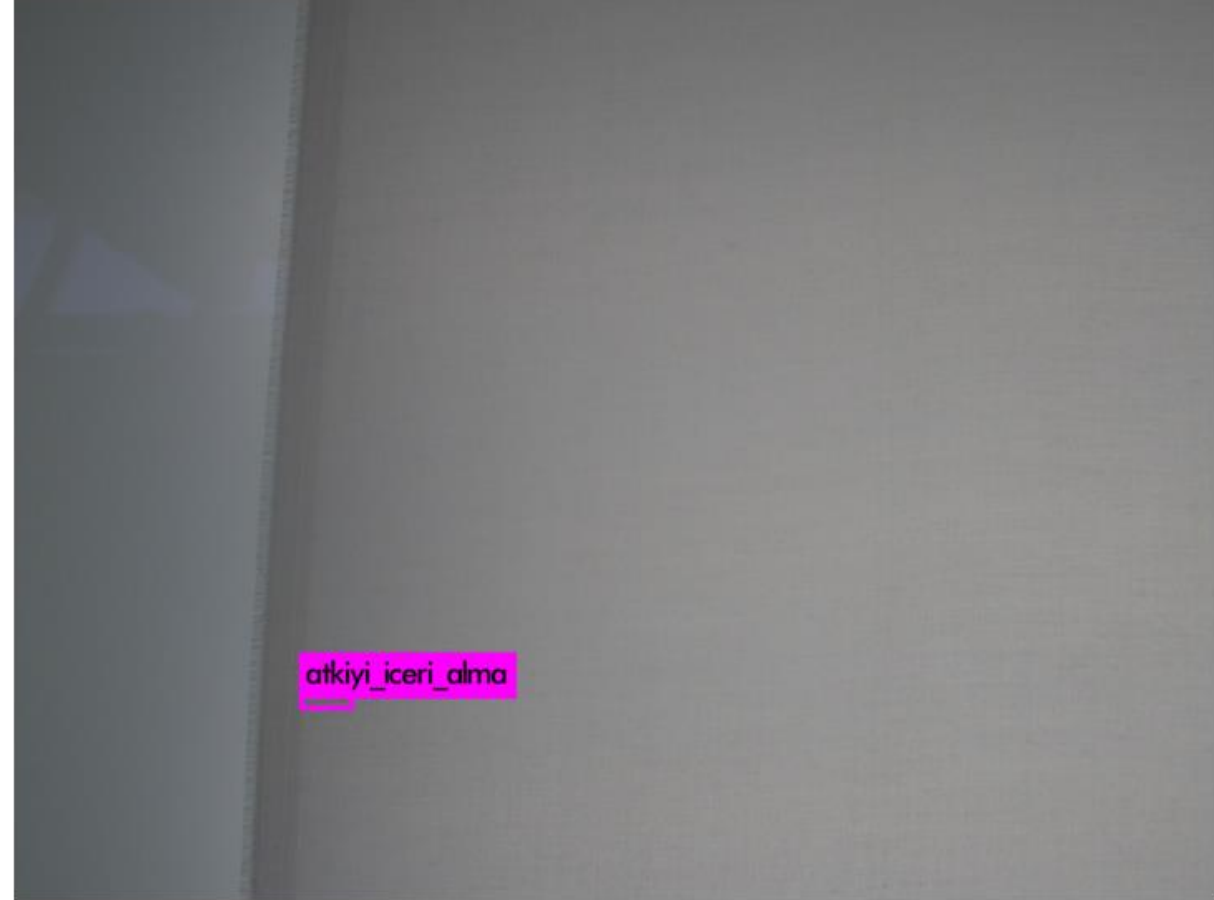
YOLOv4 Sonucu



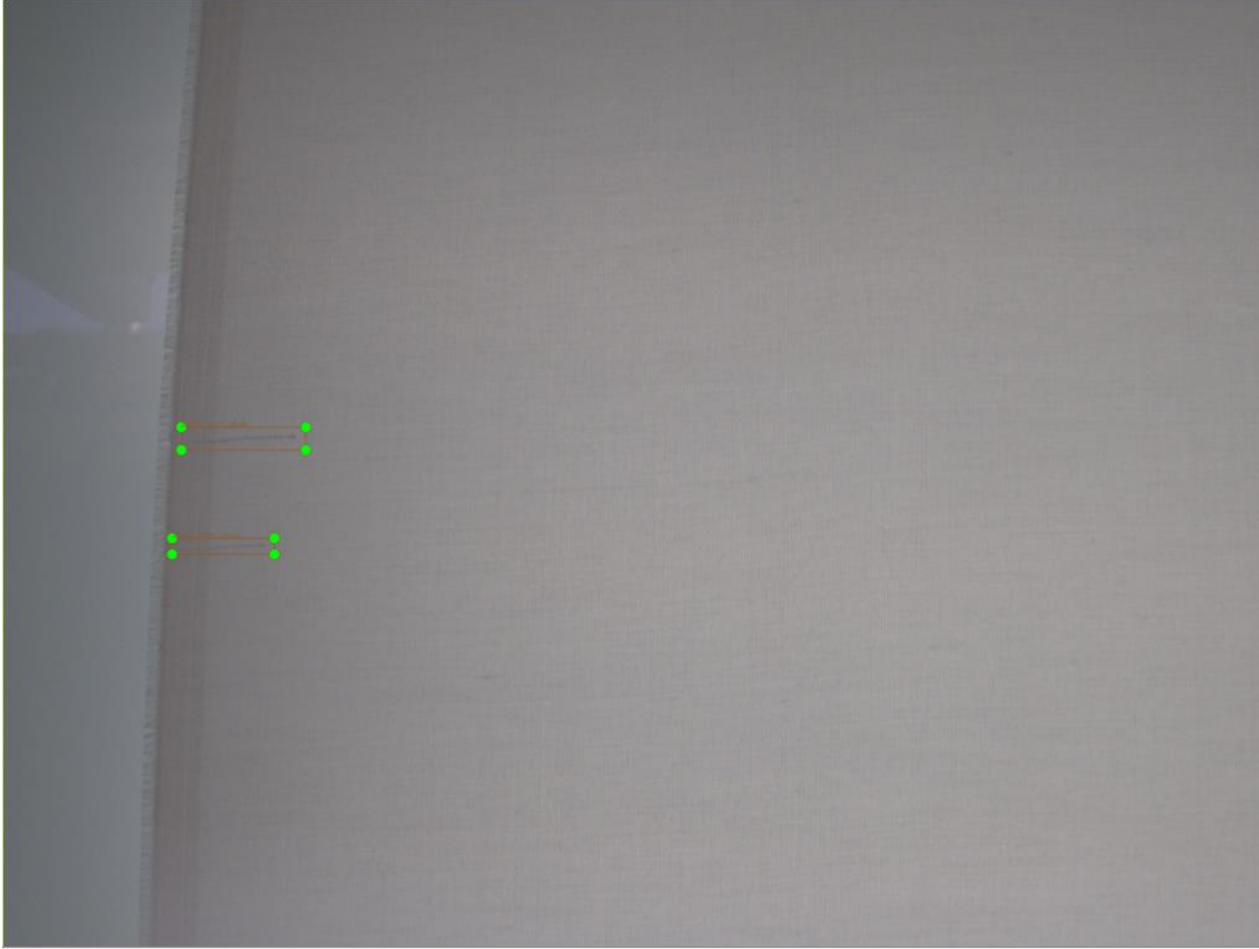
Asıl Veri



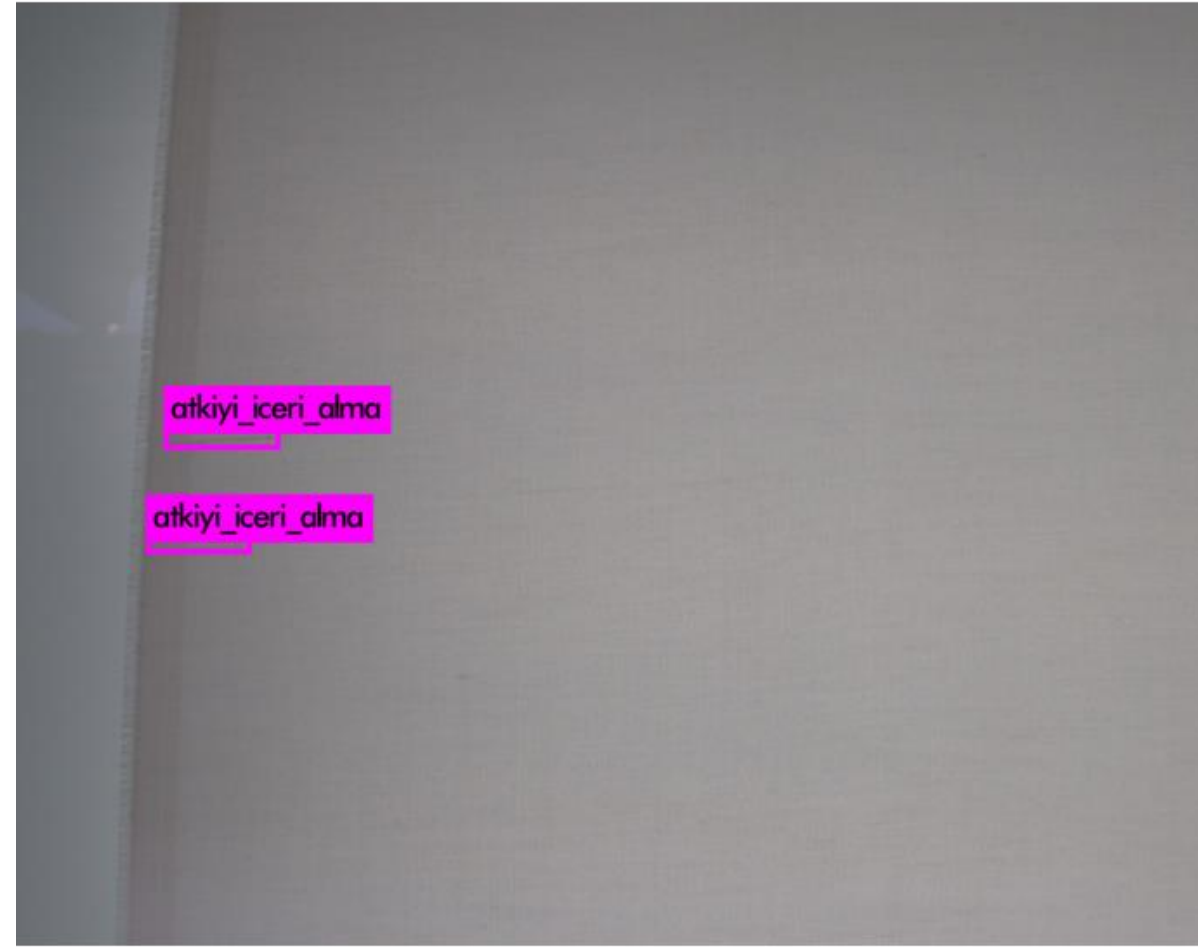
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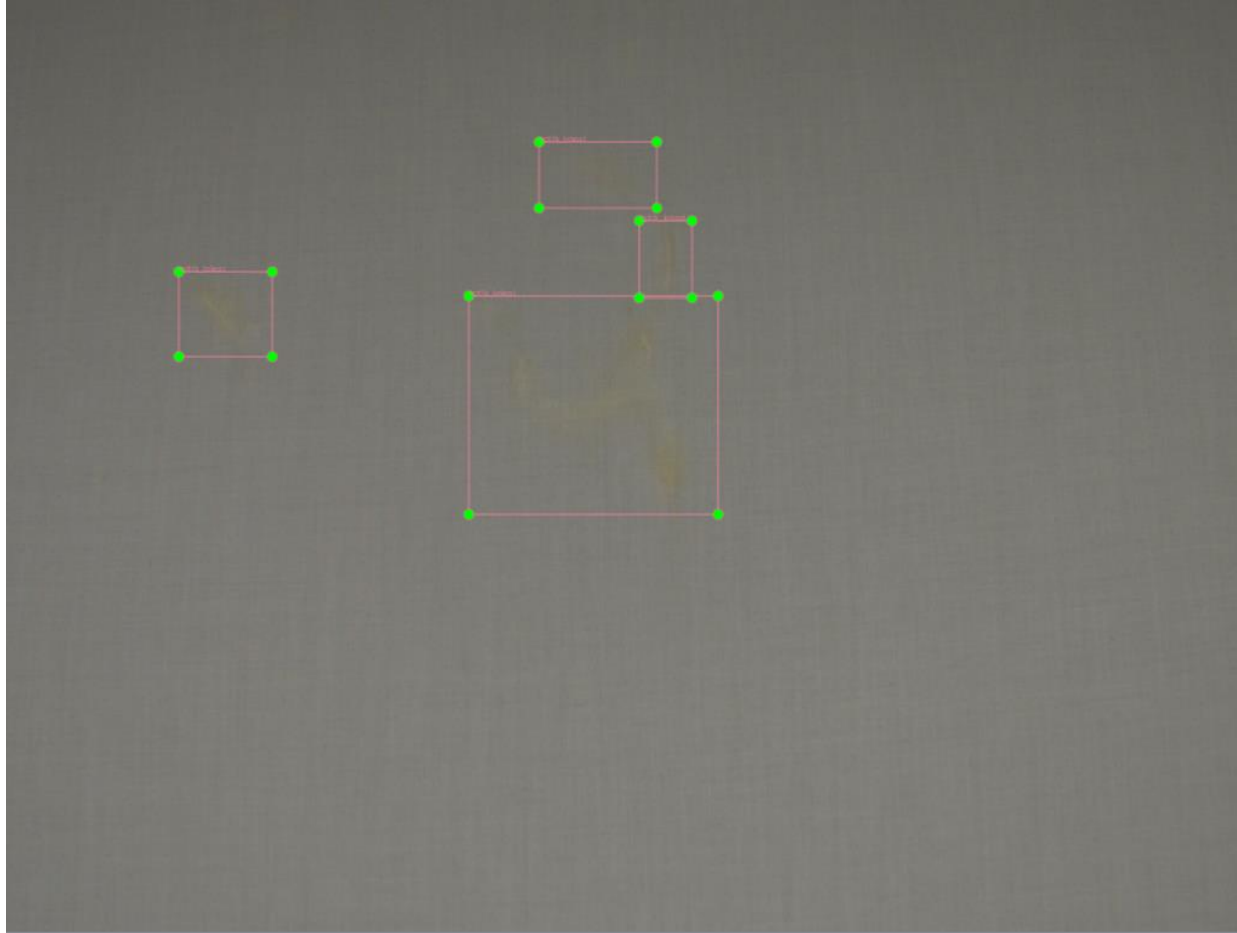
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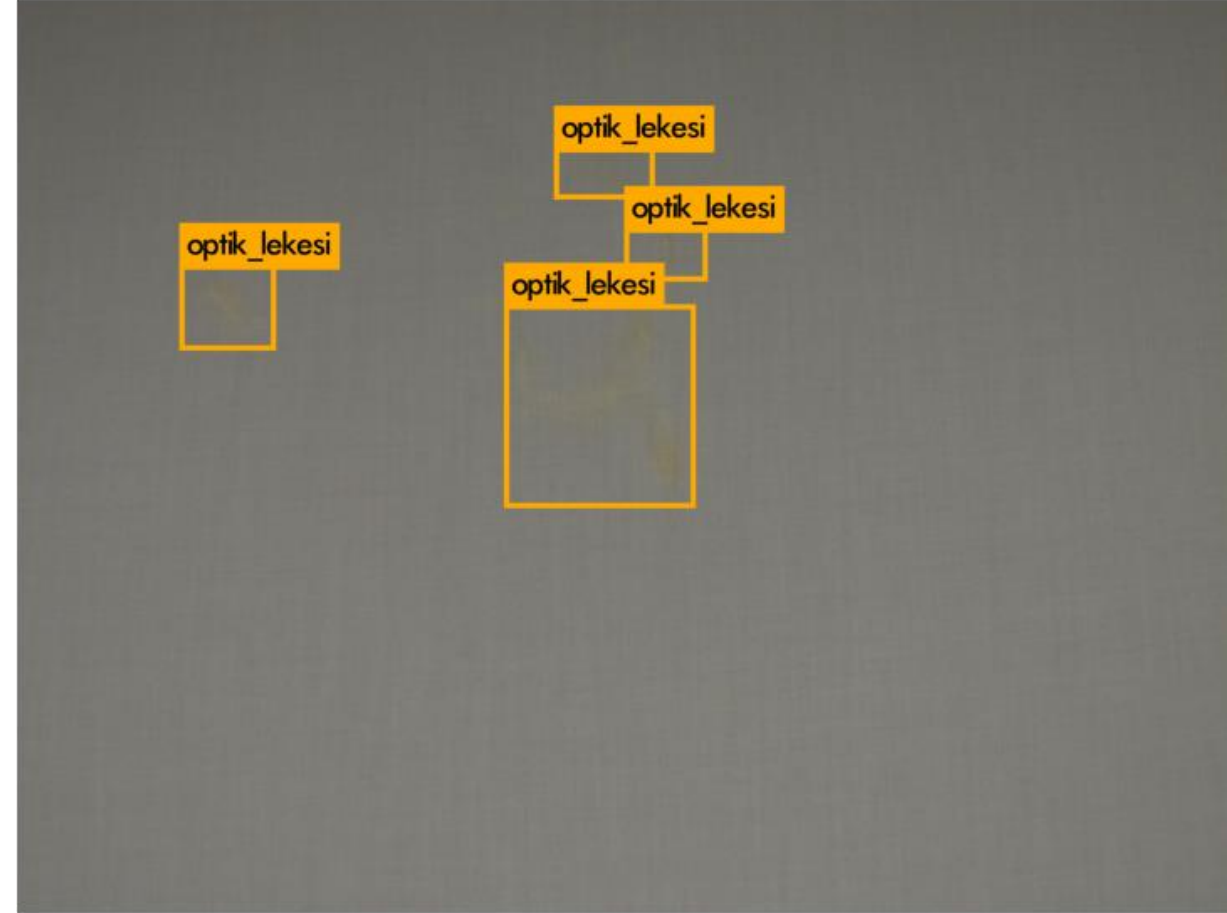
YOLOv4 Sonucu



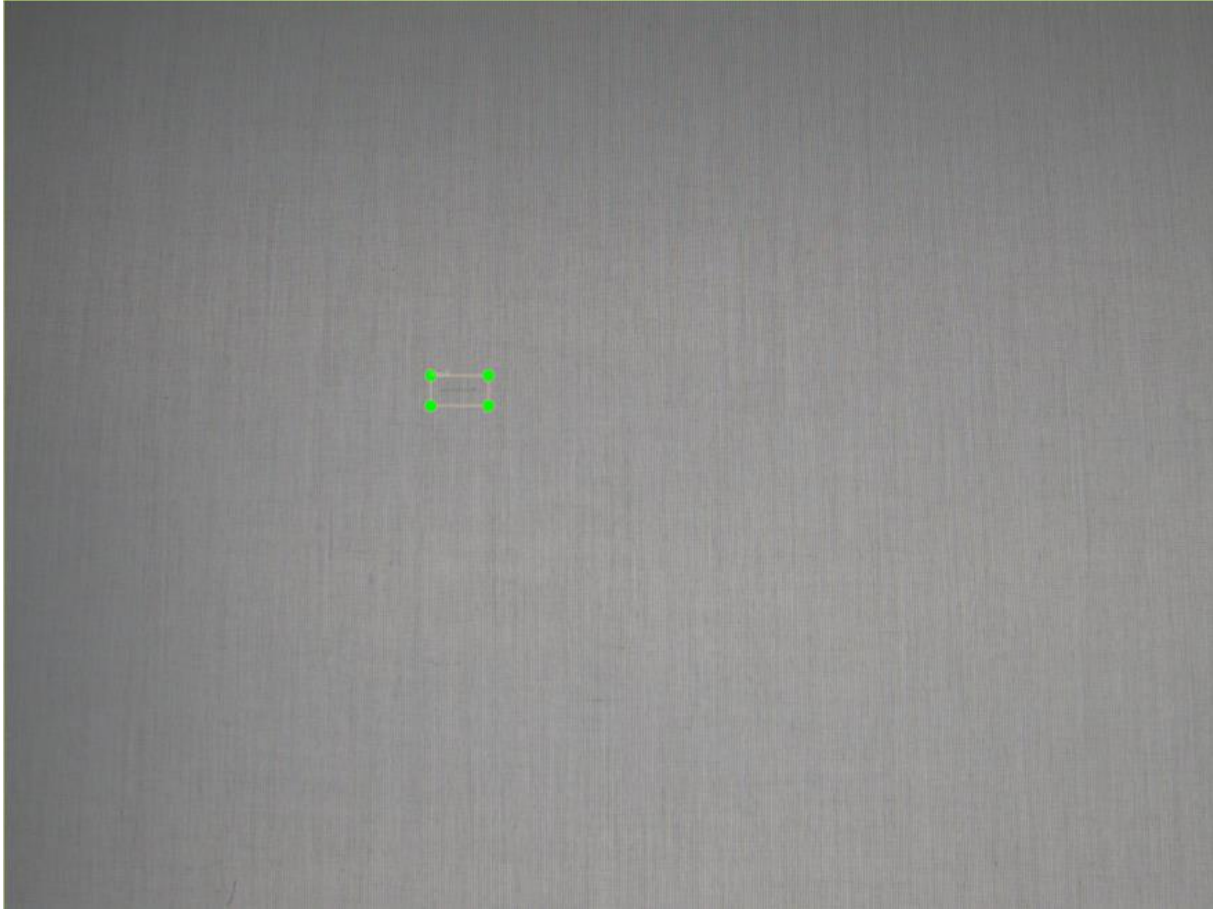
Asıl Veri



YOLOv4 Sonucu



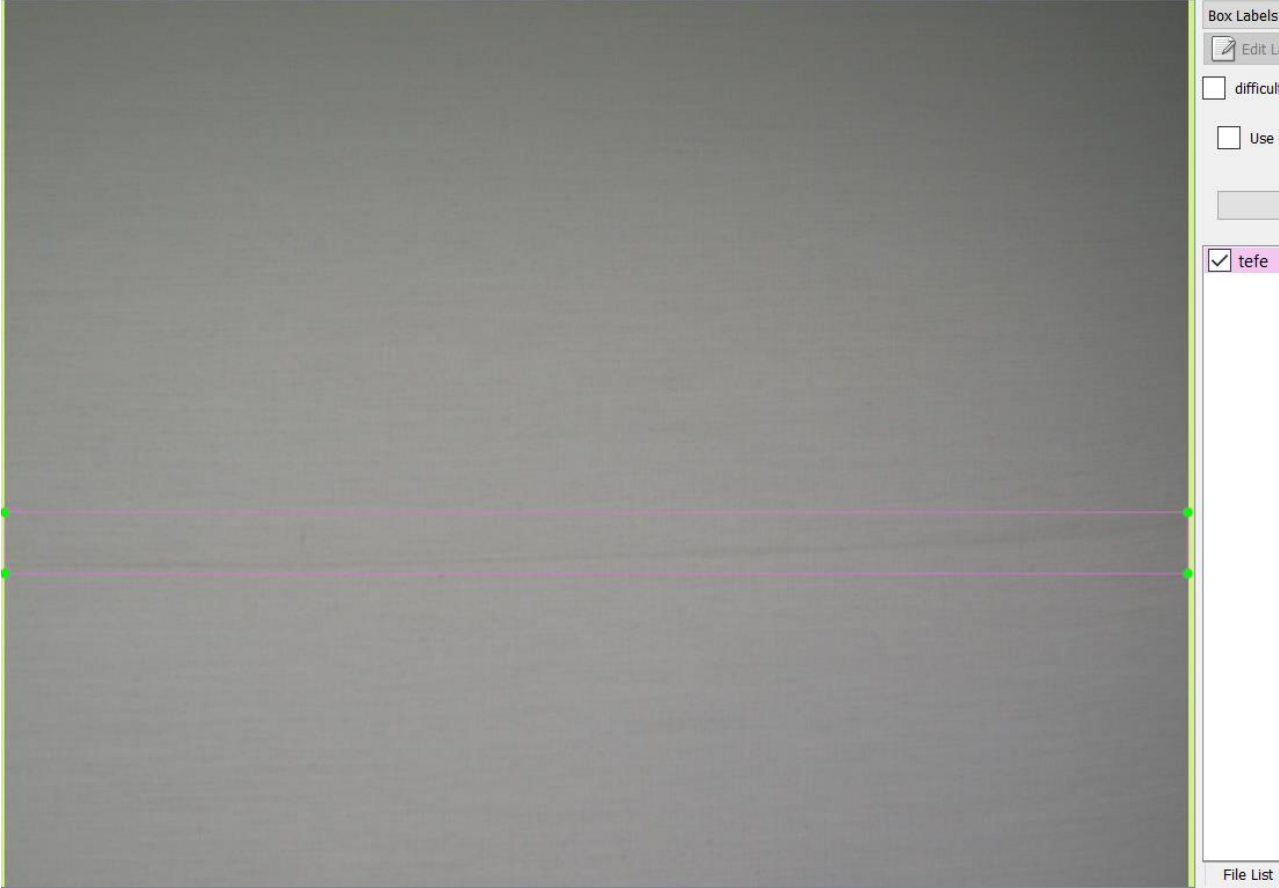
Asıl Veri



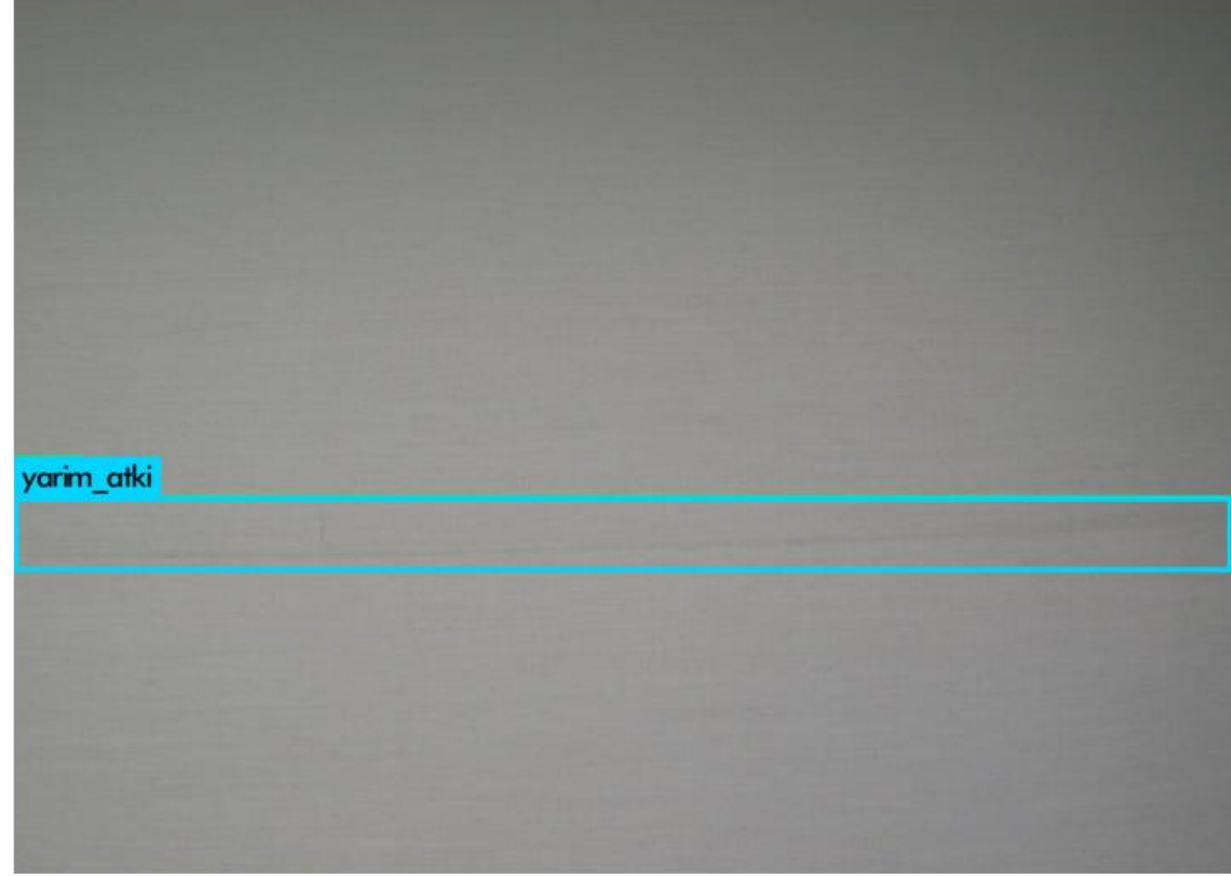
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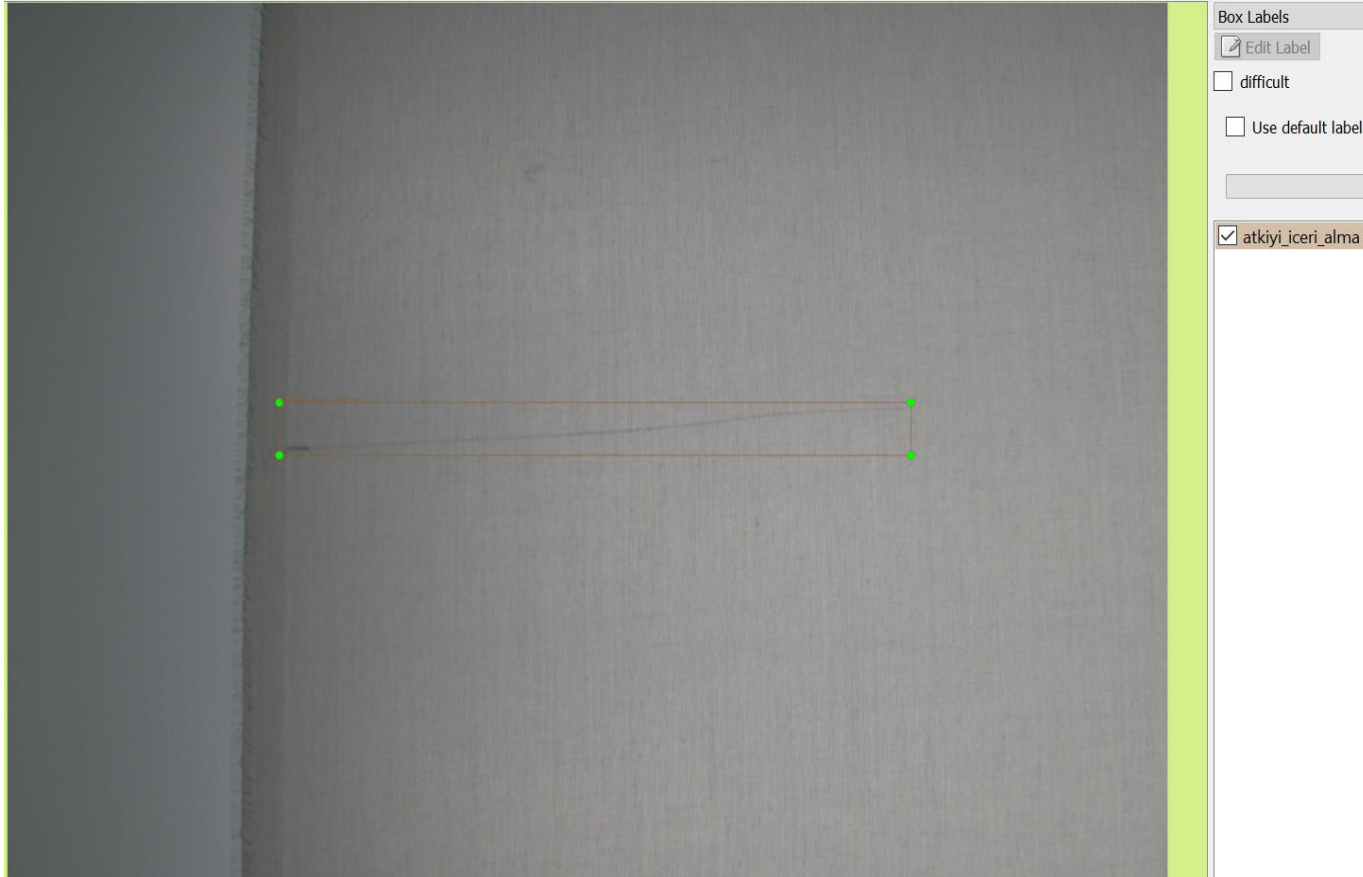
Asıl Veri



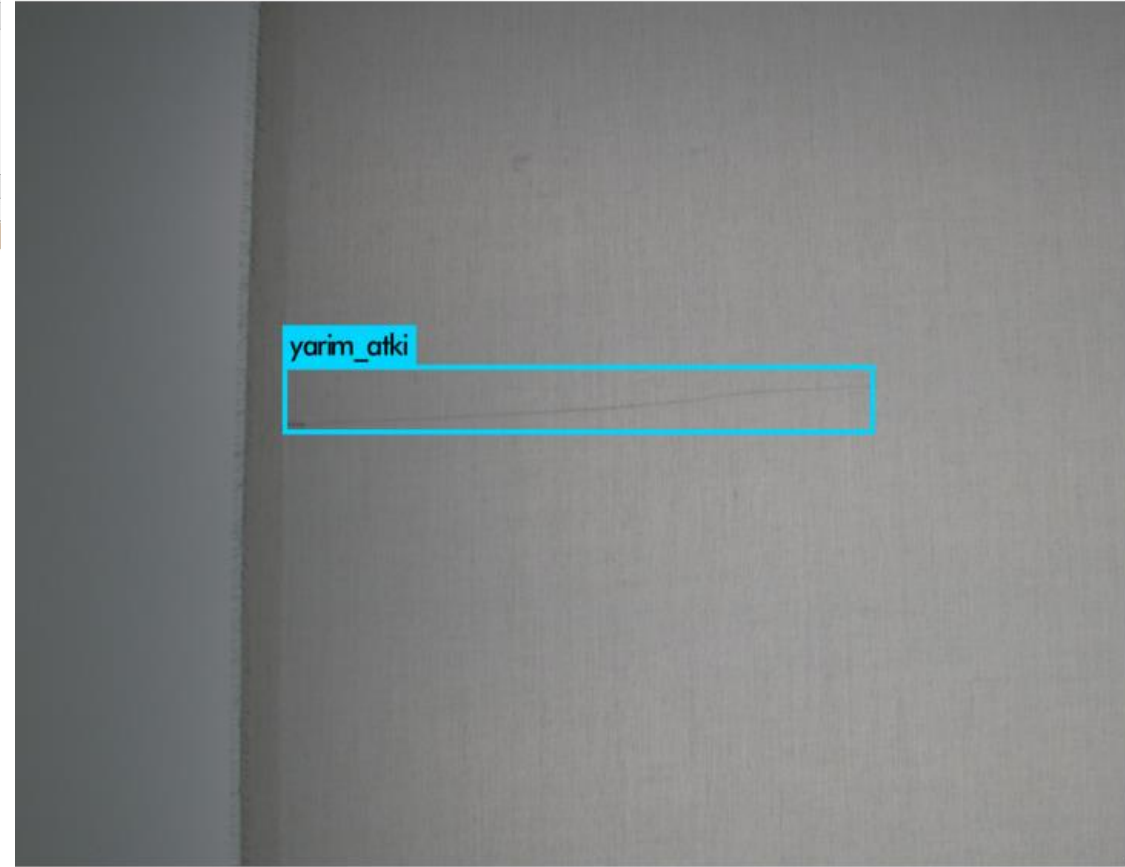
YOLOv4 Sonucu



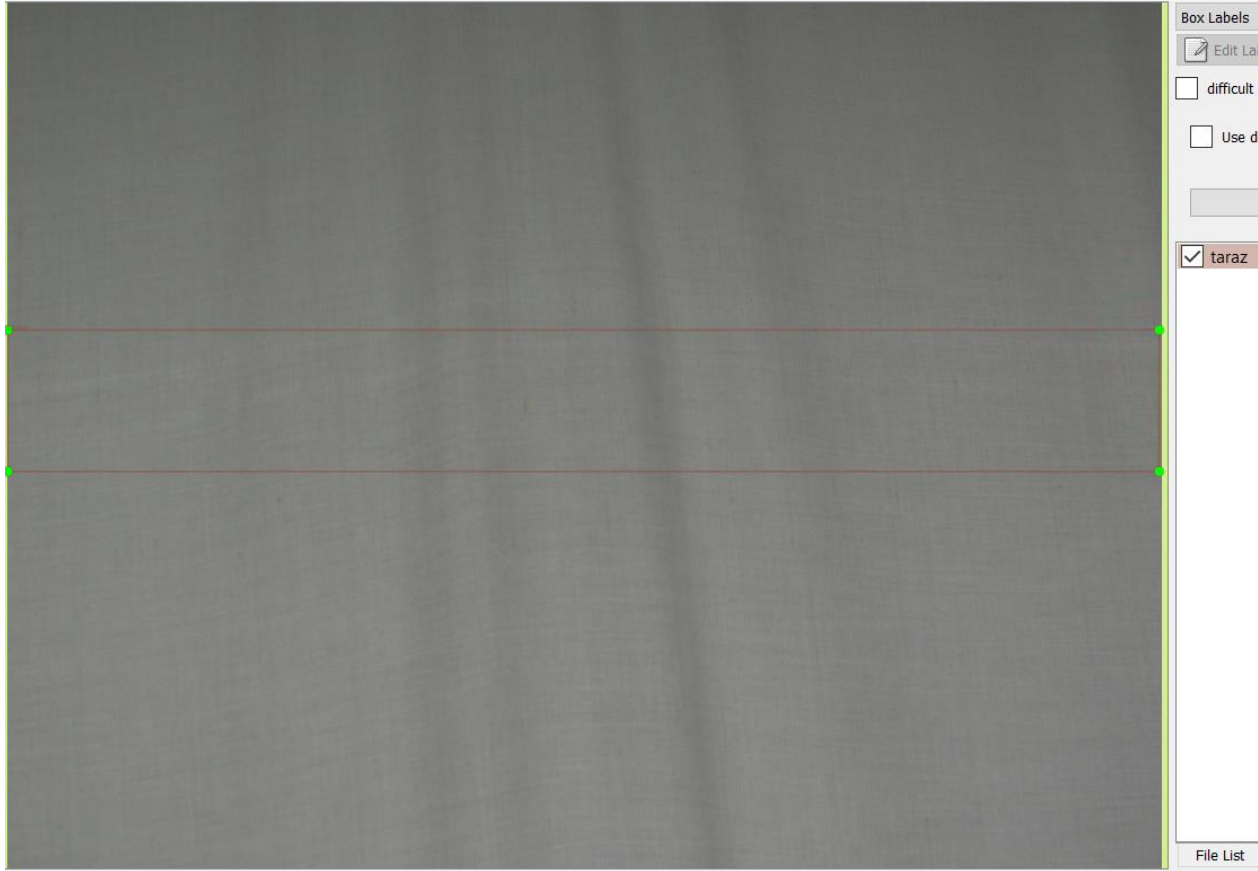
Asıl Veri



YOLOv4 Sonucu



Asıl Veri



YOLOv4 Sonucu

