Aero2Astro
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(25/09/2021)

Today i had trained Yolo v4 model upto 2500 epochs and performed evaluation.

Train :

```
 calculation mAP (mean average precision)...
 Detection layer: 139 - type = 28
 Detection layer: 150 - type = 28
 Detection layer: 161 - type = 28
396
 detections_count = 2217, unique_truth_count = 663
class_id = 0, name = tower_lattice, ap = 99.11%         (TP = 268, FP = 19)
class_id = 1, name = tower_tucohy, ap = 92.22%          (TP = 152, FP = 29)
class_id = 2, name = tower_wooden, ap = 90.53%          (TP = 194, FP = 28)

 for conf_thresh = 0.25, precision = 0.89, recall = 0.93, F1-score = 0.91
 for conf_thresh = 0.25, TP = 614, FP = 76, FN = 49, average IoU = 71.95 %

 IoU threshold = 50 %, used Area-Under-Curve for each unique Recall
 mean average precision (mAP@0.50) = 0.939544, or 93.95 %
Total Detection Time: 48 Seconds
```

Test :

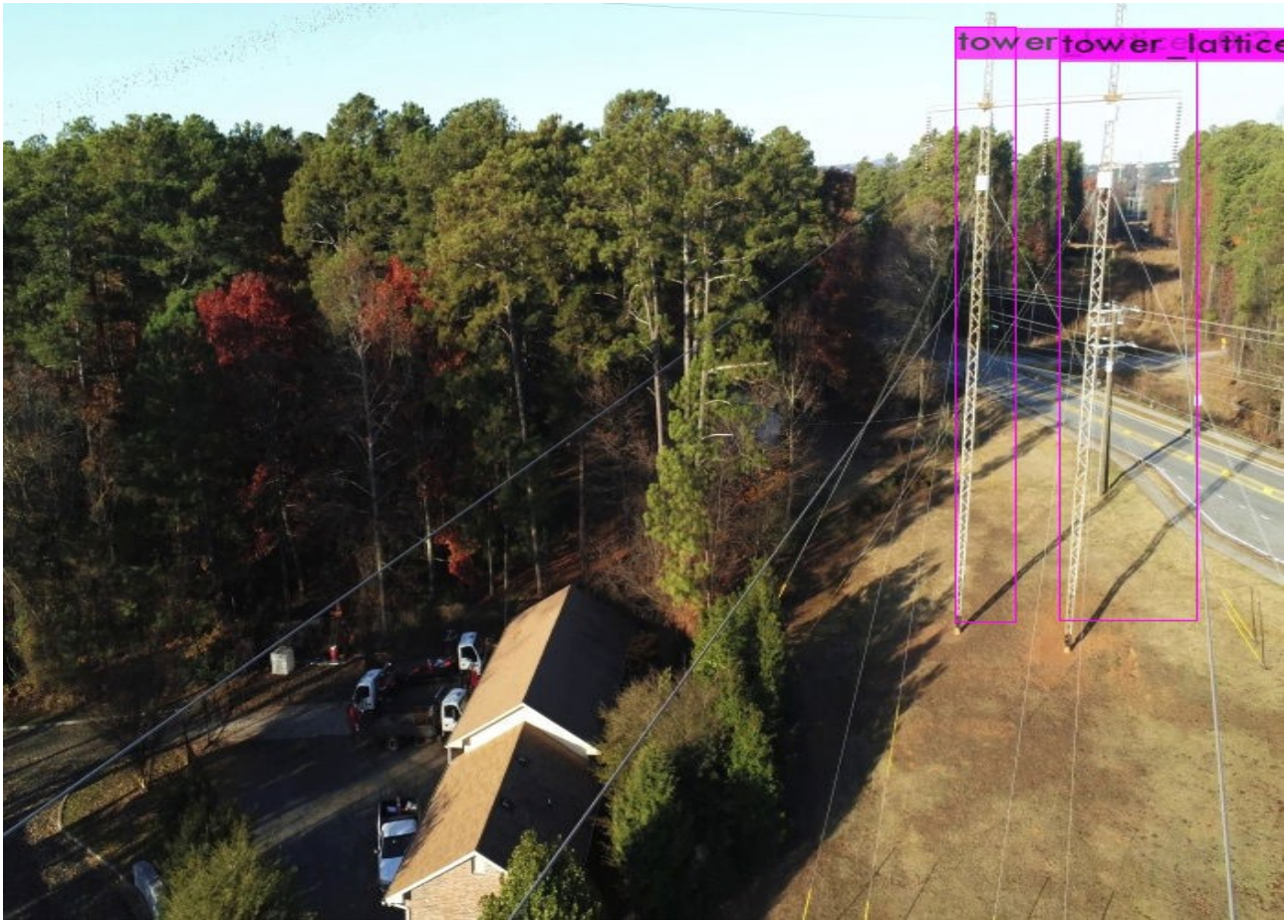
```
 calculation mAP (mean average precision)...
 Detection layer: 139 - type = 28
 Detection layer: 150 - type = 28
 Detection layer: 161 - type = 28
124
 detections_count = 752, unique_truth_count = 202
class_id = 0, name = tower_lattice, ap = 91.25%         (TP = 71, FP = 14)
class_id = 1, name = tower_tucohy, ap = 88.32%          (TP = 37, FP = 8)
class_id = 2, name = tower_wooden, ap = 70.62%          (TP = 41, FP = 11)

 for conf_thresh = 0.25, precision = 0.82, recall = 0.74, F1-score = 0.78
 for conf_thresh = 0.25, TP = 149, FP = 33, FN = 53, average IoU = 61.38 %

 IoU threshold =  0 %, used Area-Under-Curve for each unique Recall
 mean average precision (mAP@0.00) = 0.833934, or 83.39 %
Total Detection Time: 16 Seconds
```

https://github.com/Panneer003/Aero2astro_code/blob/main/TTPLA/Yolov4_TTLPA_2500_eps.ipynb

Detection Result :



tower_tucohy: 0.98