

Aero2Astro
Panneerselvam N
(20/10/2021)

Today i had trained Yolo v4 model upto 11700 epochs with jitter = 0.45. And also evaluated with both training and test dataset.

Threshold_IOU = 0.2

Train :

```
calculation mAP (mean average precision)...
Detection layer: 139 - type = 28
Detection layer: 150 - type = 28
Detection layer: 161 - type = 28
396
detections_count = 1252, unique_truth_count = 663
class_id = 0, name = tower_lattice, ap = 99.85%      (TP = 273, FP = 9)
class_id = 1, name = tower_tucohy, ap = 97.92%      (TP = 166, FP = 14)
class_id = 2, name = tower_wooden, ap = 99.14%      (TP = 212, FP = 10)

for conf_thresh = 0.25, precision = 0.95, recall = 0.98, F1-score = 0.97
for conf_thresh = 0.25, TP = 651, FP = 33, FN = 12, average IoU = 81.73 %

IoU threshold = 20 %, used Area-Under-Curve for each unique Recall
mean average precision (mAP@0.20) = 0.989710, or 98.97 %
Total Detection Time: 47 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 = 390, unique_truth_count = 202
class_id = 0, name = tower_lattice, ap = 89.93%      (TP = 77, FP = 5)
class_id = 1, name = tower_tucohy, ap = 81.62%      (TP = 38, FP = 10)
class_id = 2, name = tower_wooden, ap = 63.46%      (TP = 40, FP = 12)

for conf_thresh = 0.25, precision = 0.85, recall = 0.77, F1-score = 0.81
for conf_thresh = 0.25, TP = 155, FP = 27, FN = 47, average IoU = 66.48 %

IoU threshold = 20 %, used Area-Under-Curve for each unique Recall
mean average precision (mAP@0.20) = 0.783349, or 78.33 %
Total Detection Time: 16 Seconds

Get points flag:
```

