Aero2Astro
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(27/09/2021)

Today i had trained Yolo v4 model upto 3500 epochs and performed evaluation.

Train :

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 calculation mAP (mean average precision)...
 Detection layer: 139 - type = 28
 Detection layer: 150 - type = 28
 Detection layer: 161 - type = 28
396
 detections_count = 2135, unique_truth_count = 663
class_id = 0, name = tower_lattice, ap = 98.03%          (TP = 267, FP = 20)
class_id = 1, name = tower_tucohy, ap = 94.22%           (TP = 161, FP = 25)
class_id = 2, name = tower_wooden, ap = 91.74%           (TP = 194, FP = 39)

 for conf_thresh = 0.25, precision = 0.88, recall = 0.94, F1-score = 0.91
 for conf_thresh = 0.25, TP = 622, FP = 84, FN = 41, average IoU = 70.03 %

 IoU threshold = 50 %, used Area-Under-Curve for each unique Recall
 mean average precision (mAP@0.50) = 0.946636, or 94.66 %
Total Detection Time: 52 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 = 845, unique_truth_count = 202
class_id = 0, name = tower_lattice, ap = 83.08%          (TP = 71, FP = 21)
class_id = 1, name = tower_tucohy, ap = 78.34%           (TP = 35, FP = 16)
class_id = 2, name = tower_wooden, ap = 53.17%           (TP = 37, FP = 22)

 for conf_thresh = 0.25, precision = 0.71, recall = 0.71, F1-score = 0.71
 for conf_thresh = 0.25, TP = 143, FP = 59, FN = 59, average IoU = 54.15 %

 IoU threshold = 50 %, used Area-Under-Curve for each unique Recall
 mean average precision (mAP@0.50) = 0.715304, or 71.53 %
Total Detection Time: 16 Seconds
```

Detection Result :