

Panneerselvam N (09/08/2021)

I had trained PP-Yolo v2 model upto 959 epochs. The minimum loss is 21 and fluctuates in between 20 to 33.

Evaluation Training :

```
Accumulating evaluation results...
DONE (t=0.89s).
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.423
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.806
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.407
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.330
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.537
Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.555
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 1 ] = 0.210
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 10 ] = 0.515
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.619
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.507
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.697
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.785
[08/09 17:58:04] ppdet.metrics.coco_utils INFO: Per-category of bbox AP:
+-----+-----+-----+-----+-----+
| category | AP | category | AP | category | AP |
+-----+-----+-----+-----+-----+
| aeroplane | 0.469 | car | 0.401 | chair | 0.424 |
| cow | 0.518 | person | 0.374 | traffic_light | 0.354 |
+-----+-----+-----+-----+-----+
[08/09 17:58:04] ppdet.metrics.coco_utils INFO: per-category PR curve has output to bbox_pr_curve
[08/09 17:58:04] ppdet.engine INFO: Total sample number: 689, average FPS: 3.9500141211572988
```

Evaluation test :

```
Accumulating evaluation results...
DONE (t=0.26s).
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.161
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.344
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.122
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.093
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.231
Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.275
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 1 ] = 0.126
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 10 ] = 0.321
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.413
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.259
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.495
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.647
[08/09 17:52:09] ppdet.metrics.coco_utils INFO: Per-category of bbox AP:
+-----+-----+-----+-----+-----+
| category | AP | category | AP | category | AP |
+-----+-----+-----+-----+-----+
| aeroplane | 0.261 | car | 0.102 | chair | 0.105 |
| cow | 0.304 | person | 0.053 | traffic_light | 0.140 |
+-----+-----+-----+-----+-----+
[08/09 17:52:09] ppdet.metrics.coco_utils INFO: per-category PR curve has output to bbox_pr_curve folder
[08/09 17:52:09] ppdet.engine INFO: Total sample number: 190, average FPS: 6.176581610856113
```

FPS (test data):

```
save result to: output/images/COCO_val2014_000000025077.jpg
save result to: output/images/COCO_val2014_000000082518.jpg
class_id:0, confidence:0.6465, left_top:[14.53,38.26],right_bottom:[590.04,326.36]
save result to: output/images/COCO_val2014_0000000424776.jpg
class_id:3, confidence:0.5186, left_top:[151.54,113.13],right_bottom:[272.44,262.42]
save result to: output/images/COCO_val2014_000000555337.jpg
save result to: output/images/COCO_val2014_0000000434511.jpg
class_id:3, confidence:0.8176, left_top:[127.17,174.70],right_bottom:[278.18,299.98]
class_id:3, confidence:0.7087, left_top:[339.63,232.80],right_bottom:[503.69,327.88]
save result to: output/images/COCO_val2014_0000000405811.jpg
----- Inference Time Info -----
total_time(ms): 1049562.0, img_num: 229
average latency time(ms): 4583.24, QPS: 0.218186
preprocess_time(ms): 488.20, inference_time(ms): 4095.00, postprocess_time(ms): 0.00
```