

Panneerselvam N (06/08/2021)

I had trained PP-Yolo v2 model upto 800 epochs. The minimum loss is 22 and fluctuates in between 20 to 35. Evaluated with both training and test dataset. Results are good with compare to previous checkpoints. But it gives only 4 to 5 FPS, and also model try to overfit little bit.

Evaluation Training :

```
Accumulating evaluation results...
DONE (t=0.75s).
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.361
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.745
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.302
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.279
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.479
Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.470
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 1 ] = 0.189
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 10 ] = 0.469
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.576
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.456
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.657
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.732
[08/06 15:01:50] ppdet.metrics.coco_utils INFO: Per-category of bbox AP:
+-----+-----+-----+-----+
| category | AP | category | AP | category | AP |
+-----+-----+-----+-----+
| aeroplane | 0.413 | car | 0.338 | chair | 0.342 |
| cow | 0.454 | person | 0.310 | traffic_light | 0.308 |
+-----+-----+-----+-----+
[08/06 15:01:50] ppdet.metrics.coco_utils INFO: per-category PR curve has output to bbox_pr_curve folder.
[08/06 15:01:50] ppdet.engine INFO: Total sample number: 689, average FPS: 4.838689913822015
```

Evaluation test :

```
Accumulating evaluation results...
DONE (t=0.23s).
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.162
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.360
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.120
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.098
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.228
Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.289
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 ] = 0.313
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.407
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.255
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.476
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.672
[08/06 15:05:48] ppdet.metrics.coco_utils INFO: Per-category of bbox AP:
+-----+-----+-----+-----+
| category | AP | category | AP | category | AP |
+-----+-----+-----+-----+
| aeroplane | 0.292 | car | 0.106 | chair | 0.107 |
| cow | 0.280 | person | 0.060 | traffic_light | 0.125 |
+-----+-----+-----+-----+
[08/06 15:05:48] ppdet.metrics.coco_utils INFO: per-category PR curve has output to bbox_pr_curve folder.
[08/06 15:05:48] ppdet.engine INFO: Total sample number: 190, average FPS: 4.000028188803708
```

corrected 500ins json link (test): <https://drive.google.com/file/d/1WJxlhbb-fYf6YxXPkuWbxuFF1kyn4QR/view?usp=sharing>