

Panneerselvam N (13/09/2021)

Today i had trained faster rcnn model upto 169499 iterations with more augmentation. And also evaluated with both training and test data set.

Previous Checkpoint: 138000

Test :

Augmentation : Resize(1024), HFlip

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[09/09 03:58:44 d2.evaluation.fast_eval_api]: COCOeval opt.accumulate() finished in 0.02 seconds.
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.384
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.565
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.415
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.232
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.503
Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.552
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 1 ] = 0.221
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 10 ] = 0.541
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.581
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.404
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.688
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.819
[09/09 03:58:44 d2.evaluation.coco_evaluation]: Evaluation results for bbox:
| AP | AP50 | AP75 | APs | APm | APl |
|-----|-----|-----|-----|-----|-----|
| 38.352 | 56.507 | 41.474 | 23.209 | 50.253 | 55.211 |
[09/09 03:58:44 d2.evaluation.coco_evaluation]: Per-category bbox AP:
| category | AP | category | AP | category | AP |
|-----|-----|-----|-----|-----|-----|
| aeroplane | 64.450 | car | 26.561 | chair | 30.293 |
| cow | 58.988 | person | 20.008 | traffic_light | 29.813 |
```

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Total inference time: 0:02:17.554629 (0.743539 s / iter per device, on 1 devices)
Total inference pure compute time: 0:02:16 (0.740199 s / iter per device, on 1 devices)
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Train :

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[09/09 04:08:01 d2.evaluation.fast_eval_api]: COCOeval opt.accumulate() finished in 0.05 seconds.
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.656
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.865
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.733
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.565
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.743
Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.825
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 1 ] = 0.306
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 10 ] = 0.717
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.756
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.667
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.827
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.912
[09/09 04:08:01 d2.evaluation.coco_evaluation]: Evaluation results for bbox:
| AP | AP50 | AP75 | APs | APm | APl |
|-----|-----|-----|-----|-----|-----|
| 65.610 | 86.528 | 73.318 | 56.502 | 74.312 | 82.524 |
[09/09 04:08:01 d2.evaluation.coco_evaluation]: Per-category bbox AP:
| category | AP | category | AP | category | AP |
|-----|-----|-----|-----|-----|-----|
| aeroplane | 88.144 | car | 57.644 | chair | 67.827 |
| cow | 74.917 | person | 55.569 | traffic_light | 49.560 |
OrderedDict([('bbox',
```

```
Total inference time: 0:08:27.085180 (0.741353 s / iter per device, on 1 devices)
Total inference pure compute time: 0:08:24 (0.738200 s / iter per device, on 1 devices)
```

Previous Checkpoints : 159500 itr

Augmentation : Resize(1024),Hflip ,Random brightness , Random Rotation ,
Random crop

Test:

```
[09/12 02:03:09 d2.evaluation.fast_eval_api]: COCOeval opt.accumulate() finished in 0.02 seconds.
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.180
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.509
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.062
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.143
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.258
Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.255
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 1 ] = 0.115
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 10 ] = 0.312
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.348
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.271
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.397
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.475
[09/12 02:03:09 d2.evaluation.coco_evaluation]: Evaluation results for bbox:
| AP | AP50 | AP75 | APs | APm | APl |
|-----|-----|-----|-----|-----|-----|
| 17.967 | 50.904 | 6.185 | 14.321 | 25.769 | 25.460 |
[09/12 02:03:09 d2.evaluation.coco_evaluation]: Per-category bbox AP:
| category | AP | category | AP | category | AP |
|-----|-----|-----|-----|-----|-----|
| aeroplane | 22.703 | car | 16.018 | chair | 14.871 |
| cow | 21.525 | person | 11.191 | traffic_light | 21.497 |
OrderedDict([('bbox',
Total inference time: 0:02:22.004286 (0.767591 s / iter per device, on 1 devices)
Total inference pure compute time: 0:02:21 (0.764274 s / iter per device, on 1 devices)
```

Train :

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[09/12 02:11:59 d2.evaluation.fast_eval_api]: COCOeval opt.accumulate() finished in 0.07 seconds.
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.282
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.785
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.064
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.278
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.332
Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.347
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 1 ] = 0.146
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 10 ] = 0.372
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.408
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.377
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.438
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.470
[09/12 02:11:59 d2.evaluation.coco_evaluation]: Evaluation results for bbox:
| AP | AP50 | AP75 | APs | APm | APl |
|-----|-----|-----|-----|-----|-----|
| 28.240 | 78.504 | 6.387 | 27.821 | 33.190 | 34.669 |
[09/12 02:11:59 d2.evaluation.coco_evaluation]: Per-category bbox AP:
| category | AP | category | AP | category | AP |
|-----|-----|-----|-----|-----|-----|
| aeroplane | 24.856 | car | 28.422 | chair | 32.137 |
| cow | 32.960 | person | 20.032 | traffic_light | 31.035 |
OrderedDict([('bbox',
Inference done 600/600. Data loading: 0:00:24 s/iter. Inference: 0:00:01 s/iter. Eval: 0:00:00
Total inference time: 0:08:42.158078 (0.763389 s / iter per device, on 1 devices)
Total inference pure compute time: 0:08:39 (0.760207 s / iter per device, on 1 devices)
tional: Preparing results for COCO format
```


Current Checkpoints : 169500 itr

Test :

```
[09/14 02:53:59 d2.evaluation.fast_eval_api]: COCOeval_opt.accumulate() finished in 0.07 seconds.
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.167
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.500
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.055
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.129
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.240
Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.236
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 1 ] = 0.109
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 10 ] = 0.290
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.326
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.251
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.374
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.428
[09/14 02:53:59 d2.evaluation.coco_evaluation]: Evaluation results for bbox:
| AP | AP50 | AP75 | APs | APm | APl |
|:-----:|:-----:|:-----:|:-----:|:-----:|:-----:|
| 16.709 | 49.991 | 5.477 | 12.857 | 23.986 | 23.576 |
[09/14 02:53:59 d2.evaluation.coco_evaluation]: Per-category bbox AP:
| category | AP | category | AP | category | AP |
|:-----:|:-----:|:-----:|:-----:|:-----:|:-----:|
| aeroplane | 20.112 | car | 15.217 | chair | 13.859 |
| cow | 20.728 | person | 10.448 | traffic_light | 19.888 |
OrderedDict([('bbox',
Inference done 180/190. Dataloading: 0.0025 s/iter. Inference: 0.7481 s/iter. Eval: 0.0003
Inference done 187/190. Dataloading: 0.0024 s/iter. Inference: 0.7473 s/iter. Eval: 0.0003
Total inference time: 0:02:18.911336 (0.750872 s / iter per device, on 1 devices)
Total inference pure compute time: 0:02:18 (0.747379 s / iter per device, on 1 devices)
time: Preparing results for COCO format
```

Train :

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[09/14 03:03:23 d2.evaluation.fast_eval_api]: COCOeval_opt.accumulate() finished in 0.08 seconds.
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.260
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.768
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.053
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.253
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.303
Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.331
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 1 ] = 0.135
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 10 ] = 0.351
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.386
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.348
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.415
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = 0.453
[09/14 03:03:23 d2.evaluation.coco_evaluation]: Evaluation results for bbox:
| AP | AP50 | AP75 | APs | APm | APl |
|:-----:|:-----:|:-----:|:-----:|:-----:|:-----:|
| 25.977 | 76.821 | 5.261 | 25.308 | 30.270 | 33.084 |
[09/14 03:03:23 d2.evaluation.coco_evaluation]: Per-category bbox AP:
| category | AP | category | AP | category | AP |
|:-----:|:-----:|:-----:|:-----:|:-----:|:-----:|
| aeroplane | 20.833 | car | 26.889 | chair | 30.052 |
| cow | 30.904 | person | 18.081 | traffic_light | 29.104 |
OrderedDict([('bbox',
Inference done 685/689. Dataloading: 0.0025 s/iter. Inference: 0.7452 s/iter. Eval: 0.0003 s/
Total inference time: 0:08:31.961533 (0.748482 s / iter per device, on 1 devices)
Total inference pure compute time: 0:08:29 (0.745104 s / iter per device, on 1 devices)
time: Preparing results for COCO format
```