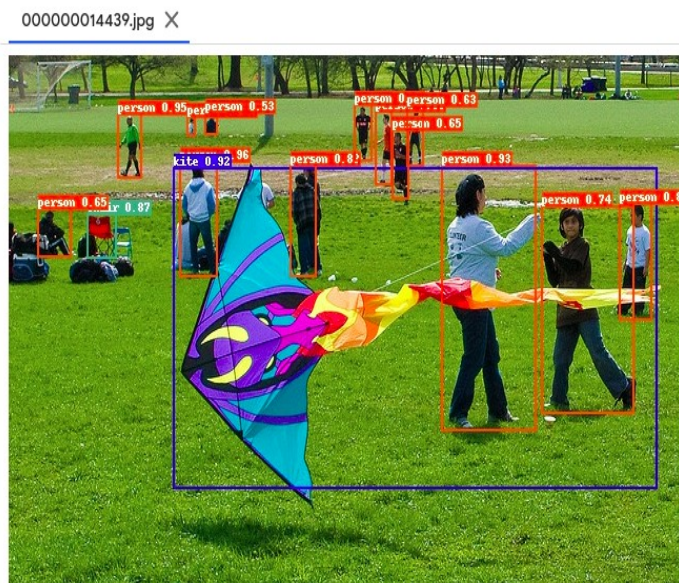


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Date : 01/07/2021

Today I had worked with both Pre-trained and custom model of PP-Yolo. First I had tested PP-Yolo's pre-trained weights with Paddle paddle framework. It works fine .

Output of pre-trained model :



Custom model Training :

For Yolo v4 custom training ,I have used Coco dataset, which is annotated by myself and my teams.

But that is in the form of Yolo , for PP-Yolo need to convert coco json format . So , I had referenced the following link for convention . While converting I had faced many errors , after fixing them ,finally converted to json format.

<https://www.programmersought.com/article/43131872583/>

I had used my Colab and drive for custom model training. I had changed some training configurations in the directory of **configs/detections/coco_detection.yml** and chooses **ppyolo_r50vd_dcn_2x_coco.yml** as my model .

While beginning of training , GPU error was occurred . I had fixed with changing the batch size to 8. After some epochs it stores checkpoints in output folder.

GitHub link : https://github.com/Panneer003/Aero2astro_code.git

Training screenshot :

[07/01 15:24:00]	ppdet.engine	INFO:	Epoch:	[24]	[80/118]	learning_rate:	0.007280	loss_xy:	0.502146	loss_wh:	0.902119	loss_iou:	2.015367
[07/01 15:24:33]	ppdet.engine	INFO:	Epoch:	[24]	[100/118]	learning_rate:	0.007330	loss_xy:	0.472280	loss_wh:	0.700274	loss_iou:	1.781399
[07/01 15:24:50]	ppdet.engine	INFO:	Epoch:	[25]	[0/118]	learning_rate:	0.007375	loss_xy:	0.472481	loss_wh:	0.687549	loss_iou:	1.689430
[07/01 15:25:07]	ppdet.engine	INFO:	Epoch:	[25]	[20/118]	learning_rate:	0.007425	loss_xy:	0.459343	loss_wh:	0.607969	loss_iou:	1.656345
[07/01 15:25:23]	ppdet.engine	INFO:	Epoch:	[25]	[40/118]	learning_rate:	0.007475	loss_xy:	0.466967	loss_wh:	0.590123	loss_iou:	1.718088
[07/01 15:25:38]	ppdet.engine	INFO:	Epoch:	[25]	[60/118]	learning_rate:	0.007525	loss_xy:	0.500049	loss_wh:	0.604204	loss_iou:	1.896110
[07/01 15:25:55]	ppdet.engine	INFO:	Epoch:	[25]	[80/118]	learning_rate:	0.007575	loss_xy:	0.505336	loss_wh:	0.599516	loss_iou:	1.748980
[07/01 15:26:12]	ppdet.engine	INFO:	Epoch:	[25]	[100/118]	learning_rate:	0.007625	loss_xy:	0.486737	loss_wh:	0.695270	loss_iou:	1.774534
[07/01 15:26:27]	ppdet.engine	INFO:	Epoch:	[26]	[0/118]	learning_rate:	0.007670	loss_xy:	0.601647	loss_wh:	0.587154	loss_iou:	1.787859
[07/01 15:26:43]	ppdet.engine	INFO:	Epoch:	[26]	[20/118]	learning_rate:	0.007720	loss_xy:	0.516754	loss_wh:	0.443563	loss_iou:	1.476426
[07/01 15:27:01]	ppdet.engine	INFO:	Epoch:	[26]	[40/118]	learning_rate:	0.007770	loss_xy:	0.451929	loss_wh:	0.682828	loss_iou:	1.656873
[07/01 15:27:18]	ppdet.engine	INFO:	Epoch:	[26]	[60/118]	learning_rate:	0.007820	loss_xy:	0.473800	loss_wh:	0.618440	loss_iou:	1.683789
[07/01 15:27:35]	ppdet.engine	INFO:	Epoch:	[26]	[80/118]	learning_rate:	0.007870	loss_xy:	0.499683	loss_wh:	0.542984	loss_iou:	1.602733
[07/01 15:27:51]	ppdet.engine	INFO:	Epoch:	[26]	[100/118]	learning_rate:	0.007920	loss_xy:	0.495099	loss_wh:	0.702861	loss_iou:	1.896661
[07/01 15:28:08]	ppdet.engine	INFO:	Epoch:	[27]	[0/118]	learning_rate:	0.007965	loss_xy:	0.454018	loss_wh:	0.502796	loss_iou:	1.540364
[07/01 15:28:24]	ppdet.engine	INFO:	Epoch:	[27]	[20/118]	learning_rate:	0.008015	loss_xy:	0.453980	loss_wh:	0.553490	loss_iou:	1.623779
[07/01 15:28:40]	ppdet.engine	INFO:	Epoch:	[27]	[40/118]	learning_rate:	0.008065	loss_xy:	0.474208	loss_wh:	0.463362	loss_iou:	1.576898
[07/01 15:28:58]	ppdet.engine	INFO:	Epoch:	[27]	[60/118]	learning_rate:	0.008115	loss_xy:	0.520382	loss_wh:	0.706644	loss_iou:	1.814262
[07/01 15:29:16]	ppdet.engine	INFO:	Epoch:	[27]	[80/118]	learning_rate:	0.008165	loss_xy:	0.535376	loss_wh:	0.557219	loss_iou:	1.821809
[07/01 15:29:33]	ppdet.engine	INFO:	Epoch:	[27]	[100/118]	learning_rate:	0.008215	loss_xy:	0.502364	loss_wh:	0.577339	loss_iou:	1.692064
[07/01 15:29:49]	ppdet.engine	INFO:	Epoch:	[28]	[0/118]	learning_rate:	0.008260	loss_xy:	0.556470	loss_wh:	0.626928	loss_iou:	1.772945
[07/01 15:30:06]	ppdet.engine	INFO:	Epoch:	[28]	[20/118]	learning_rate:	0.008310	loss_xy:	0.486000	loss_wh:	0.472163	loss_iou:	1.593446
[07/01 15:30:24]	ppdet.engine	INFO:	Epoch:	[28]	[40/118]	learning_rate:	0.008360	loss_xy:	0.490123	loss_wh:	0.768792	loss_iou:	1.835244
[07/01 15:30:40]	ppdet.engine	INFO:	Epoch:	[28]	[60/118]	learning_rate:	0.008410	loss_xy:	0.503554	loss_wh:	0.557421	loss_iou:	1.670001
[07/01 15:30:58]	ppdet.engine	INFO:	Epoch:	[28]	[80/118]	learning_rate:	0.008460	loss_xy:	0.509444	loss_wh:	0.609660	loss_iou:	1.707631
[07/01 15:31:14]	ppdet.engine	INFO:	Epoch:	[28]	[100/118]	learning_rate:	0.008510	loss_xy:	0.489243	loss_wh:	0.557604	loss_iou:	1.598672
[07/01 15:31:30]	ppdet.engine	INFO:	Epoch:	[29]	[0/118]	learning_rate:	0.008555	loss_xy:	0.499589	loss_wh:	0.524144	loss_iou:	1.601968
[07/01 15:31:48]	ppdet.engine	INFO:	Epoch:	[29]	[20/118]	learning_rate:	0.008605	loss_xy:	0.471628	loss_wh:	0.581669	loss_iou:	1.706707
[07/01 15:32:05]	ppdet.engine	INFO:	Epoch:	[29]	[40/118]	learning_rate:	0.008655	loss_xy:	0.464497	loss_wh:	0.825471	loss_iou:	1.896339

Checkpoints screenshot:

