

File - test

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1 C:\Users\hilmi\AppData\Local\Programs\Python\Python312\python.exe D:\Projects\Code\python-projects\yolo-gfl\test\test.py
2 STARTING COMPREHENSIVE MODEL EVALUATION
3 Data config: ../dataset/HOME-FIRE/data.yaml
4 Test images: ../dataset/HOME-FIRE/test/images
5 Models to evaluate: 2
6
7 Evaluating Model: YOLOv12
8 Model Info:
9 YOLOv12 summary: 272 layers, 2,538,486 parameters, 0 gradients, 6.0 GFLOPs
10 (272, 2538486, 0, 6.0090368)
11 Model Size: 5.21 MB
12
13 Standard Ultralytics Evaluation
14 Ultralytics 8.3.157 Python-3.12.10 torch-2.6.0+cu126 CUDA:0 (NVIDIA GeForce RTX 4060 Laptop GPU, 8188MiB)
15 YOLOv12 summary (fused): 159 layers, 2,527,166 parameters, 0 gradients, 5.8 GFLOPs
16 val: Fast image access (ping: 0.10.0 ms, read: 1543.21118.1 MB/s, size: 353.2 KB)
17 val: Scanning D:\Projects\Code\python-projects\yolo-gfl\dataset\HOME-FIRE\test\labels.cache... 1300 images, 15 backgrounds, 0 corrupt: 100%|██████████|
1300/1300 [00:00<?, ?it/s]
18      Class      Images  Instances   Box(P          R      mAP50  mAP50-95): 100%|██████████| 82/82 [00:08<00:00,  9.48it/s]
19      all         1300      1586     0.901     0.834     0.894     0.57
20      Fire         852       897     0.923     0.851     0.917     0.592
21      Smoke        618       689     0.878     0.816     0.872     0.548
22 Speed: 0.2ms preprocess, 2.2ms inference, 0.0ms loss, 1.0ms postprocess per image
23 Saving runs\evaluation\YOLOv12\predictions.json...
24 Results saved to runs\evaluation\YOLOv12
25 Ultralytics evaluation completed in 31.49 seconds
26
27 Real-world Performance Analysis
28 Calculating real-world performance metrics...
29 Found 1300 test images
30 Warming up model...
31 Processing images:  0%|██████████| 0/1300 [00:00<?, ?it/s]Measuring inference performance...
32 Processing images: 100%|██████████| 1300/1300 [00:37<00:00, 35.09it/s]
33   Processed 1300 images
34   Average inference time: 18.06 ms
35   FPS: 55.38
36
37 Evaluating Model: YOLO-GFL
38 Model Info:
39 YOLO-gfl summary: 198 layers, 1,616,270 parameters, 0 gradients, 4.7 GFLOPs
40 (198, 1616270, 0, 4.7103232)
41 Model Size: 3.36 MB
42
43 Standard Ultralytics Evaluation
44 Ultralytics 8.3.157 Python-3.12.10 torch-2.6.0+cu126 CUDA:0 (NVIDIA GeForce RTX 4060 Laptop GPU, 8188MiB)
45 YOLO-gfl summary (fused): 118 layers, 1,611,126 parameters, 0 gradients, 4.6 GFLOPs
46 val: Fast image access (ping: 0.10.0 ms, read: 1829.71561.8 MB/s, size: 354.4 KB)
47 val: Scanning D:\Projects\Code\python-projects\yolo-gfl\dataset\HOME-FIRE\test\labels.cache... 1300 images, 15 backgrounds, 0 corrupt: 100%|██████████|
1300/1300 [00:00<?, ?it/s]
48      Class      Images  Instances   Box(P          R      mAP50  mAP50-95): 100%|██████████| 82/82 [00:08<00:00,  9.89it/s]
49      all         1300      1586     0.908     0.816     0.891     0.564
50      Fire         852       897     0.929     0.818     0.914     0.59
51      Smoke        618       689     0.887     0.813     0.868     0.539
52 Speed: 0.2ms preprocess, 1.6ms inference, 0.0ms loss, 1.1ms postprocess per image
53 Saving runs\evaluation\YOLO-GFL\predictions.json...
54 Results saved to runs\evaluation\YOLO-GFL
55 Ultralytics evaluation completed in 29.42 seconds
56
57 Real-world Performance Analysis
58 Calculating real-world performance metrics...
59 Found 1300 test images
60 Warming up model...
61 Measuring inference performance...
62 Processing images: 100%|██████████| 1300/1300 [00:29<00:00, 43.68it/s]
63   Processed 1300 images
64   Average inference time: 12.52 ms
65   FPS: 79.86
66
67 COMPREHENSIVE PERFORMANCE SUMMARY
68 Model      Size(MB)   Avg Time(ms)   Std Time(ms)   FPS      Images
69 YOLOv12    5.21      18.06          3.67           55.38    1300
70 YOLO-GFL   3.36      12.52          1.74           79.86    1300
71
72 Best FPS: YOLO-GFL (79.86 FPS)
73 Fastest Inference: YOLO-GFL (12.52 ms)
74
75 Generating performance visualizations...
76 Performance visualization saved to: runs/performance_analysis\performance_comparison.png
77 Time vs FPS comparison saved to: runs/performance_analysis\time_vs_fps_comparison.png
78 EVALUATION COMPLETE!
79
80 Process finished with exit code 0
81
```