

D:\yolov8_ocr\ultralytics\cfg\yolov8_char_config.yaml

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1 # Ultralytics YOLO 🚀, AGPL-3.0 license
2 # Default training settings and hyperparameters for medium-augmentation COCO training
3
4 task: detect # (str) YOLO task, i.e. detect, segment, classify, pose
5 mode: train # (str) YOLO mode, i.e. train, val, predict, export, track, benchmark
6
7 # Train settings -----
8
9 model: # (str, optional) path to model file, i.e. yolov8n.pt, yolov8n.yaml
10 data: # (str, optional) path to data file, i.e. coco128.yaml
11 epochs: 100 # (int) number of epochs to train for
12 patience: 50 # (int) epochs to wait for no observable improvement for early stopping of training
13 batch: 16 # (int) number of images per batch (-1 for AutoBatch)
14 imgsz: 640 # (int | list) input images size as int for train and val modes, or list[w,h] for
15 predict and export modes
16 save: True # (bool) save train checkpoints and predict results
17 save_period: -1 # (int) Save checkpoint every x epochs (disabled if < 1)
18 cache: False # (bool) True/ram, disk or False. Use cache for data loading
19 device: # (int | str | list, optional) device to run on, i.e. cuda device=0 or device=0,1,2,3 or
20 device=cpu
21 workers: 8 # (int) number of worker threads for data loading (per RANK if DDP)
22 project: # (str, optional) project name
23 name: # (str, optional) experiment name, results saved to 'project/name' directory
24 exist_ok: False # (bool) whether to overwrite existing experiment
25 pretrained: True # (bool | str) whether to use a pretrained model (bool) or a model to load weights
26 from (str)
27 optimizer: auto # (str) optimizer to use, choices=[SGD, Adam, Adamax, AdamW, NAdam, RAdam, RMSProp,
28 auto]
29 verbose: True # (bool) whether to print verbose output
30 seed: 0 # (int) random seed for reproducibility
31 deterministic: True # (bool) whether to enable deterministic mode
32 single_cls: False # (bool) train multi-class data as single-class
33 rect: False # (bool) rectangular training if mode='train' or rectangular validation if mode='val'
34 cos_lr: False # (bool) use cosine learning rate scheduler
35 close_mosaic: 10 # (int) disable mosaic augmentation for final epochs (0 to disable)
36 resume: False # (bool) resume training from last checkpoint
37 amp: True # (bool) Automatic Mixed Precision (AMP) training, choices=[True, False], True runs AMP
38 check
39 fraction: 1.0 # (float) dataset fraction to train on (default is 1.0, all images in train set)
40 profile: False # (bool) profile ONNX and TensorRT speeds during training for loggers
41 freeze: None # (int | list, optional) freeze first n layers, or freeze list of layer indices during
42 training
43 # Segmentation
44 overlap_mask: True # (bool) masks should overlap during training (segment train only)
45 mask_ratio: 4 # (int) mask downsample ratio (segment train only)
46 # Classification
47 dropout: 0.0 # (float) use dropout regularization (classify train only)
48
49 # Val/Test settings -----
50
51 val: True # (bool) validate/test during training
52 split: val # (str) dataset split to use for validation, i.e. 'val', 'test' or 'train'
53 save_json: False # (bool) save results to JSON file
54 save_hybrid: False # (bool) save hybrid version of labels (labels + additional predictions)
55 conf: # (float, optional) object confidence threshold for detection (default 0.25 predict, 0.001
56 val)
57 iou: 0.5 # (float) intersection over union (IoU) threshold for NMS # pk
58 max_det: 300 # (int) maximum number of detections per image
59 half: False # (bool) use half precision (FP16)
60 dnn: False # (bool) use OpenCV DNN for ONNX inference
61 plots: True # (bool) save plots during train/val
62
63 # Prediction settings -----
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55 source: # (str, optional) source directory for images or videos
56 show: False # (bool) show results if possible
57 save_txt: False # (bool) save results as .txt file
58 save_conf: False # (bool) save results with confidence scores
59 save_crop: False # (bool) save cropped images with results
60 show_labels: True # (bool) show object labels in plots
61 show_conf: True # (bool) show object confidence scores in plots
62 vid_stride: 1 # (int) video frame-rate stride
63 stream_buffer: False # (bool) buffer all streaming frames (True) or return the most recent frame (False)
64 line_width: # (int, optional) line width of the bounding boxes, auto if missing
65 visualize: False # (bool) visualize model features
66 augment: False # (bool) apply image augmentation to prediction sources
67 agnostic_nms: False # (bool) class-agnostic NMS
68 classes: # (int | list[int], optional) filter results by class, i.e. classes=0, or classes=[0,2,3]
69 retina_masks: False # (bool) use high-resolution segmentation masks
70 boxes: True # (bool) Show boxes in segmentation predictions
71
72 # Export settings -----
73 format: torchscript # (str) format to export to, choices at
74   https://docs.ultralytics.com/modes/export/#export-formats
75 keras: False # (bool) use Keras
76 optimize: False # (bool) TorchScript: optimize for mobile
77 int8: False # (bool) CoreML/TF INT8 quantization
78 dynamic: False # (bool) ONNX/TensorRT: dynamic axes
79 simplify: False # (bool) ONNX: simplify model
80 opset: # (int, optional) ONNX: opset version
81 workspace: 4 # (int) TensorRT: workspace size (GB)
82 nms: False # (bool) CoreML: add NMS
83
84 # Hyperparameters -----
85 lr0: 0.01 # (float) initial learning rate (i.e. SGD=1E-2, Adam=1E-3)
86 lrf: 0.01 # (float) final learning rate (lr0 * lrf)
87 momentum: 0.937 # (float) SGD momentum/Adam beta1
88 weight_decay: 0.0005 # (float) optimizer weight decay 5e-4
89 warmup_epochs: 3.0 # (float) warmup epochs (fractions ok)
90 warmup_momentum: 0.8 # (float) warmup initial momentum
91 warmup_bias_lr: 0.1 # (float) warmup initial bias lr
92 box: 7.5 # (float) box loss gain
93 cls: 0.5 # (float) cls loss gain (scale with pixels)
94 dfl: 1.5 # (float) dfl loss gain
95 pose: 12.0 # (float) pose loss gain
96 kobj: 1.0 # (float) keypoint obj loss gain
97 label_smoothing: 0.0 # (float) label smoothing (fraction)
98 nbs: 64 # (int) nominal batch size
99 hsv_h: 0.1 # (float) image HSV-Hue augmentation (fraction)
100 hsv_s: 0.7 # (float) image HSV-Saturation augmentation (fraction)
101 hsv_v: 0.4 # (float) image HSV-Value augmentation (fraction)
102 degrees: 0.1 # (float) image rotation (+/- deg)
103 translate: 0.1 # (float) image translation (+/- fraction)
104 scale: 0.5 # (float) image scale (+/- gain)
105 shear: 0.0 # (float) image shear (+/- deg)
106 perspective: 0.0 # (float) image perspective (+/- fraction), range 0-0.001
107 flipud: 0.0 # (float) image flip up-down (probability)
108fliplr: 0.0 # (float) image flip left-right (probability) # pk
109 mosaic: 1.0 # (float) image mosaic (probability)
110 mixup: 0.2 # (float) image mixup (probability)
111 copy_paste: 0.0 # (float) segment copy-paste (probability)
112
113 # Custom config.yaml -----
114 cfg: # (str, optional) for overriding defaults.yaml

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115 # Tracker settings -----  
116 tracker: botsort.yaml # (str) tracker type, choices=[botsort.yaml, bytetrack.yaml]  
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