

Train YOLO V3 Detector:

Step 1:

■ Anaconda Prompt (anaconda3)

```
Successfully installed keras-2.8.0 tensorboard-2.8.0 tensorflow-2.8.2 tensorflow-estimator-2.8.0
```

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(base) C:\Users\Acer\OneDrive\Desktop\IBM\yolo_structure-master\2_Training>python Train YOLO.py_
```

Step 2(Running for 51 epochs):

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■ Anaconda Prompt (anaconda3) - python Train_YOLO.py
olo_structure/Data/Source_Images/Training_Images/vott-csv-export/rosacea%20(47).jpg 6,95,171,368,2 152,52,111,146,2 560,39,854,292,2\n', 'C:/Users/Acer/OneDrive/Desktop/IBM/yolo_structure/Data/Source_Images/Training_Images/vott-csv-export/rosacea%20(45).jpg 239,72,698,426,2 276,442,568,645,2\n', 'C:/Users/Acer/OneDrive/Desktop/IBM/yolo_structure/Data/Source_Images/Training_Images/vott-csv-export/rosacea%20(48).jpg 146,91,663,489,2 352,4,659,227,2\n', 'C:/Users/Acer/OneDrive/Desktop/IBM/yolo_structure/Data/Source_Images/Training_Images/vott-csv-export/rosacea%20(6).jpg 214,39,283,273,2 42,173,268,284,2 80,126,234,193,2 117,86,251,132,2\n', 'C:/Users/Acer/OneDrive/Desktop/IBM/yolo_structure/Data/Source_Images/Training_Images/vott-csv-export/rosacea%20(5).jpg 75,50,488,164,2 313,248,363,322,2 350,167,403,217,2 163,8,343,64,2\n', 'C:/Users/Acer/OneDrive/Desktop/IBM/yolo_structure/Data/Source_Images/Training_Images/vott-csv-export/rosacea%20(51).jpg 359,274,786,560,2 119,243,226,508,2 44,394,139,490,2 686,395,752,694,2\n', 'C:/Users/Acer/OneDrive/Desktop/IBM/yolo_structure/Data/Source_Images/Training_Images/vott-csv-export/rosacea%20(50).jpg 541,767,1088,1142,2 216,150,797,380,2 181,740,725,965,2 278,1128,680,1444,2\n', 'C:/Users/Acer/OneDrive/Desktop/IBM/yolo_structure/Data/Source_Images/Training_Images/vott-csv-export/rosacea%20(7).jpg 36,47,452,129,2\n', 'C:/Users/Acer/OneDrive/Desktop/IBM/yolo_structure/Data/Source_Images/Training_Images/vott-csv-export/rosacea%20(9).jpg 43,17,288,161,2']
train on 257 samples, val on 28 samples, with batch size 32.
epoch 1/51
2022-11-12 20:44:59.553334: E tensorflow/core/grappler/optimizers/meta_optimizer.cc:828] layout failed: INVALID_ARGUMENT: Subshape must have computed start >= end since stride is negative, but is 0 and 2 (computed from start 0 and end 9223372036854775807 over shape with rank 2 and stride-1)
2022-11-12 20:45:00.367300: W tensorflow/core/framework/cpu_allocator_impl.cc:82] Allocation of 708837376 exceeds 10% of free system memory.
2022-11-12 20:45:00.737434: W tensorflow/core/framework/cpu_allocator_impl.cc:82] Allocation of 712249344 exceeds 10% of free system memory.
2022-11-12 20:45:01.000993: W tensorflow/core/framework/cpu_allocator_impl.cc:82] Allocation of 354418088 exceeds 10% of free system memory.
2022-11-12 20:45:01.463241: W tensorflow/core/framework/cpu_allocator_impl.cc:82] Allocation of 354418088 exceeds 10% of free system memory.
2022-11-12 20:45:01.854497: W tensorflow/core/framework/cpu_allocator_impl.cc:82] Allocation of 357834752 exceeds 10% of free system memory.
8/8 [*****] - ETA: 0s - loss: 7254.82232022-11-12 20:46:17.882204: E tensorflow/core/grappler/optimizers/meta_optimizer.cc:828] layout failed: INVALID_ARGUMENT: Subshape must have computed start >= end since stride is negative, but is 0 and 2 (computed from start 0 and end 9223372036854775807 over shape with rank 2 and stride-1)
8/8 [*****] - 94s 11s/step - loss: 7254.8223 - val_loss: 6895.8181
epoch 2/51
8/8 [*****] - 82s 11s/step - loss: 6700.9668 - val_loss: 6465.4629
epoch 3/51
8/8 [*****] - ETA: 33s - loss: 6340.8022_
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Anaconda Prompt (anaconda3) - python Train_YOLO.py
8/8 [=====] - 84s 11s/step - loss: 2427.3521 - val_loss: 2402.3752
Epoch 31/51
8/8 [=====] - 86s 11s/step - loss: 2372.7100 - val_loss: 2173.8745
Epoch 32/51
8/8 [=====] - 85s 10s/step - loss: 2320.4287 - val_loss: 2216.7161
Epoch 33/51
8/8 [=====] - 82s 10s/step - loss: 2221.4817 - val_loss: 2083.2117
Epoch 34/51
8/8 [=====] - 85s 11s/step - loss: 2203.6362 - val_loss: 2089.5779
Epoch 35/51
8/8 [=====] - 81s 10s/step - loss: 2131.0862 - val_loss: 2112.1887
Epoch 36/51
8/8 [=====] - 80s 10s/step - loss: 2063.4551 - val_loss: 2146.9216
Epoch 37/51
8/8 [=====] - 80s 10s/step - loss: 2038.8488 - val_loss: 1893.9309
Epoch 38/51
8/8 [=====] - 80s 10s/step - loss: 1980.3219 - val_loss: 1887.4436
Epoch 39/51
8/8 [=====] - 81s 10s/step - loss: 1978.0317 - val_loss: 1963.2046
Epoch 40/51
8/8 [=====] - 82s 10s/step - loss: 1909.9094 - val_loss: 1865.7795
Epoch 41/51
8/8 [=====] - 82s 10s/step - loss: 1945.3557 - val_loss: 1897.7523
Epoch 42/51
8/8 [=====] - 82s 10s/step - loss: 1905.9788 - val_loss: 1819.7517
Epoch 43/51
8/8 [=====] - 81s 10s/step - loss: 1807.3015 - val_loss: 1594.1443
Epoch 44/51
8/8 [=====] - 81s 10s/step - loss: 1798.0862 - val_loss: 1683.4308
Epoch 45/51
8/8 [=====] - 82s 11s/step - loss: 1725.2231 - val_loss: 1787.3115
Epoch 46/51
8/8 [=====] - 81s 10s/step - loss: 1639.5261 - val_loss: 1839.7584
Epoch 47/51
8/8 [=====] - 81s 10s/step - loss: 1643.5699 - val_loss: 1700.9410
Epoch 48/51
8/8 [=====] - 81s 10s/step - loss: 1566.8989 - val_loss: 1524.4802
Epoch 49/51
8/8 [=====] - 83s 11s/step - loss: 1662.4087 - val_loss: 1637.2251
Epoch 50/51
8/8 [=====] - 82s 10s/step - loss: 1567.0878 - val_loss: 1487.9943
Epoch 51/51
8/8 [=====] - 87s 11s/step - loss: 1522.2220 - val_loss: 1457.9138
Unfreeze all layers.
Train on 257 samples, val on 28 samples, with batch size 4.
Epoch 52/102
2022-11-12 21:57:27.517635: E tensorflow/core/grappler/optimizers/meta_optimizer.cc:828] layout failed: INVALID_ARGUMENT: Subshape must have computed start >= end since stride is negative, but is 0 and 2 (computed from start 0 and end 9223372036854775807 over shape with rank 2 and stride-1)
9/64 [=====>] - ETA: 5:25 - loss: 2404.3611

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Anaconda Prompt (anaconda3)
8/64 [=====] - 392s 6s/step - loss: 502.6704 - val_loss: 1642.8840 - lr: 1.0000e-04
Epoch 53/102
8/64 [=====] - 368s 6s/step - loss: 81.4716 - val_loss: 511.6072 - lr: 1.0000e-04
Epoch 54/102
8/64 [=====] - 366s 6s/step - loss: 62.3048 - val_loss: 153.4852 - lr: 1.0000e-04
Epoch 55/102
8/64 [=====] - 376s 6s/step - loss: 55.7510 - val_loss: 87.1403 - lr: 1.0000e-04
Epoch 56/102
8/64 [=====] - 359s 6s/step - loss: 49.7200 - val_loss: 59.5213 - lr: 1.0000e-04
Epoch 57/102
8/64 [=====] - 364s 6s/step - loss: 48.7392 - val_loss: 68.0268 - lr: 1.0000e-04
Epoch 58/102
8/64 [=====] - 365s 6s/step - loss: 48.3577 - val_loss: 46.3339 - lr: 1.0000e-04
Epoch 59/102
8/64 [=====] - 389s 6s/step - loss: 47.1937 - val_loss: 47.9453 - lr: 1.0000e-04
Epoch 60/102
8/64 [=====] - 380s 6s/step - loss: 46.8095 - val_loss: 58.5256 - lr: 1.0000e-04
Epoch 61/102
8/64 [=====] - 368s 6s/step - loss: 44.5544 - val_loss: 38.7141 - lr: 1.0000e-04
Epoch 62/102
8/64 [=====] - 376s 6s/step - loss: 46.9520 - val_loss: 54.7530 - lr: 1.0000e-04
Epoch 63/102
8/64 [=====] - 359s 6s/step - loss: 45.5879 - val_loss: 52.2293 - lr: 1.0000e-04
Epoch 64/102
8/64 [=====] - ETA: 0s - loss: 45.2178
Epoch 64: ReduceLROnPlateau reducing learning rate to 9.999999747378752e-06.
8/64 [=====] - 357s 6s/step - loss: 45.2178 - val_loss: 60.6560 - lr: 1.0000e-04
Epoch 65/102
8/64 [=====] - 358s 6s/step - loss: 43.9298 - val_loss: 60.9995 - lr: 1.0000e-05
Epoch 66/102
8/64 [=====] - 364s 6s/step - loss: 44.8994 - val_loss: 51.7647 - lr: 1.0000e-05
Epoch 67/102
8/64 [=====] - ETA: 0s - loss: 43.2036
Epoch 67: ReduceLROnPlateau reducing learning rate to 9.999999747378752e-07.
8/64 [=====] - 356s 6s/step - loss: 43.2036 - val_loss: 47.1118 - lr: 1.0000e-05
Epoch 68/102
8/64 [=====] - 356s 6s/step - loss: 42.6137 - val_loss: 61.8321 - lr: 1.0000e-06
Epoch 69/102
8/64 [=====] - 355s 6s/step - loss: 43.3550 - val_loss: 50.3803 - lr: 1.0000e-06
Epoch 70/102
8/64 [=====] - ETA: 0s - loss: 43.3931
Epoch 70: ReduceLROnPlateau reducing learning rate to 9.999999974752428e-08.
8/64 [=====] - 338s 6s/step - loss: 43.3931 - val_loss: 52.1047 - lr: 1.0000e-06
Epoch 71/102
8/64 [=====] - 367s 6s/step - loss: 43.5895 - val_loss: 50.4242 - lr: 1.0000e-07
Epoch 71: early stopping
2022-11-12 23:59:35.296320: W tensorflow/core/kernels/data/generator_dataset_op.cc:107] Error occurred when finalizing GeneratorDataset iterator: FAILED_PRECONDITION: Python interpreter state is not initialized.
The process may be terminated.
[[[([node PyFunc]])]]
(base) C:\Users\Acer\OneDrive\Desktop\IBN\yolo_structure\2_Training>
(base) C:\Users\Acer\OneDrive\Desktop\IBN\yolo_structure\2_Training>

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