

Train YOLOv3 Detector

Date	12 November 2022
Team ID	PNT2022TMID01254
Project Name	AI - based localization and classification of skin disease with erythema

Step 1:

```
Command Prompt
Microsoft Windows [Version 10.0.19044.2130]
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C:\Users\LENOVO>cd Desktop

C:\Users\LENOVO\Desktop>cd yolo_structure

C:\Users\LENOVO\Desktop\yolo_structure>cd 2_Training

C:\Users\LENOVO\Desktop\yolo_structure\2_Training>python Download_and_Convert_YOLO_weights.py
```

Step 2:

```
Command Prompt
C:\Users\LENOVO\Desktop\yolo_structure\2_Training>python Download_and_Convert_YOLO_weights.py
2022-11-11 23:04:35.035270: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic library 'cudart64_110.dll'; dlderror: cudart64_110.dll not found
2022-11-11 23:04:35.035687: I tensorflow/stream_executor/cuda/cudart_stub.cc:29] Ignore above cudart dlerror if you do not have a GPU set up on your machine.
Loading weights.
Weights Header: 0 2 0 [32013312]
Parsing Darknet config.
Creating Keras model.
Parsing section net_0
Parsing section convolutional_0
conv2d bn leaky (3, 3, 3, 32)
2022-11-11 23:04:45.919512: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic library 'nvcuda.dll'; dlderror: nvcuda.dll not found
2022-11-11 23:04:45.919942: W tensorflow/stream_executor/cuda/cuda_driver.cc:263] failed call to cuInit: UNKNOWN ERROR (303)
2022-11-11 23:04:45.941341: I tensorflow/stream_executor/cuda/cuda_diagnostics.cc:169] retrieving CUDA diagnostic information for host: DESKTOP-7H1GF15
2022-11-11 23:04:45.941660: I tensorflow/stream_executor/cuda/cuda_diagnostics.cc:176] hostname: DESKTOP-7H1GF15
2022-11-11 23:04:45.949435: I tensorflow/core/platform/cpu_feature_guard.cc:193] This TensorFlow binary is optimized with oneAPI Deep Neural Network Library (oneDNN) to use the following CPU instructions in performance-critical operations: AVX AVX2
To enable them in other operations, rebuild TensorFlow with the appropriate compiler flags.
Parsing section convolutional_1
conv2d bn leaky (3, 3, 32, 64)
Parsing section convolutional_2
conv2d bn leaky (3, 3, 32, 64)
Parsing section shortcut_0
Parsing section convolutional_4
conv2d bn leaky (3, 3, 64, 128)
Parsing section convolutional_5
conv2d bn leaky (1, 1, 128, 64)
Parsing section convolutional_6
conv2d bn leaky (3, 3, 64, 128)
conv2d bn leaky (1, 1, 128, 64)
Parsing section convolutional_8
conv2d bn leaky (3, 3, 64, 128)
Parsing section shortcut_2
Parsing section convolutional_9
conv2d bn leaky (3, 3, 128, 256)
Parsing section convolutional_10
conv2d bn leaky (3, 3, 128, 256)
Parsing section shortcut_3
Parsing section convolutional_12
conv2d bn leaky (1, 1, 256, 128)
Parsing section convolutional_13
conv2d bn leaky (3, 3, 128, 256)
Parsing section shortcut_4
Parsing section convolutional_14
```

```
Command Prompt
conv2d linear (1, 1, 256, 255)
Parsing section yolo_2
Model: "model"

Layer (type) Output Shape Param # Connected to
-----
input_1 (InputLayer) [(None, None, None, 3)] []
conv2d (Conv2D) (None, None, None, 32) 864 ['input_1[0][0]']
leaky_re_lu (LeakyReLU) (None, None, None, 32) 0 ['batch_normalization[0][0]']
zero_padding2d (ZeroPadding2D) (None, None, None, 32) 0 ['leaky_re_lu[0][0]']
batch_normalization_1 (Batch Normalization) (None, None, None, 64) 256 ['conv2d_1[0][0]']
leaky_re_lu_1 (LeakyReLU) (None, None, None, 64) 0 ['batch_normalization_1[0][0]']
conv2d_2 (Conv2D) (None, None, None, 2048) 2048 ['leaky_re_lu_1[0][0]']
batch_normalization_2 (Batch Normalization) (None, None, None, 32) 128 ['conv2d_2[0][0]']
leaky_re_lu_2 (LeakyReLU) (None, None, None, 32) 0 ['batch_normalization_2[0][0]']
conv2d_3 (Conv2D) (None, None, None, 64) 18432 ['leaky_re_lu_2[0][0]']
realization) 64
leaky_re_lu_3 (LeakyReLU) (None, None, None, 64) 0 ['batch_normalization_3[0][0]']
add (Add) (None, None, None, 64) 0 ['leaky_re_lu_1[0][0]', 'leaky_re_lu_3[0][0]']
```

```
Command Prompt
batch_normalization_57 (Batch Normalization) (None, None, None, 1024) 4096 ['conv2d_57[0][0]']
realization) 512
batch_normalization_71 (Batch Normalization) (None, None, None, 256) 1024 ['conv2d_73[0][0]']
leaky_re_lu_57 (LeakyReLU) (None, None, None, 1024) 0 ['batch_normalization_57[0][0]']
leaky_re_lu_71 (LeakyReLU) (None, None, None, 256) 0 ['batch_normalization_71[0][0]']
conv2d_58 (Conv2D) (None, None, None, 255) 261375 ['leaky_re_lu_57[0][0]']
conv2d_74 (Conv2D) (None, None, None, 255) 65535 ['leaky_re_lu_71[0][0]']

Total params: 62,001,757
Trainable params: 61,949,149
Non-trainable params: 52,608

WARNING:tensorflow:Compiled the loaded model, but the compiled metrics have yet to be built. 'model.compile_metrics' will be empty until you train or evaluate the model.
Saved Keras model to yolo.h5
Read 62001757 of 62001757.0 from Darknet weights.
C:\Users\LENOVO\Desktop\yolo_structure\2_Training>cd Desktop
```