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Task : Yolo v4 optimization

Today I had tried to detect object with yesterday's trained weights. For detection I had tried lots of methods files like json , h5 , .data , .index . Because while training TensorFlow Yolo v4 model it producing checkpoints only. So try to modify code to save weights. But it didn't work. It produces lots of error due to model architecture conflicts.

Finally I tried replacing checkpoint weights to previously converted weights in variables folder. It works well.



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Activities Terminal Jun 26 20:05 nps@king: ~/Nps/Intern/Aero2astro/Project/Pre-trained_yolov4/tensorflow-yolov4-tfLite
constants.SAVED_MODEL_FILENAME_PB))
OSError: SavedModel file does not exist at: ./checkpoints/yolov_opt_1/(saved_model.pbtxt|saved_model.pb)
nps@king:~/Nps/Intern/Aero2astro/Project/Pre-trained_yolov4/tensorflow-yolov4-tfLite$ python detect_video.py --weights ./checkpoi
nts/yolov_opt_1 --size 416 --model yolov4 --video ./data/rain.mp4 --output ./checkpoints/out.mp4
2021-06-26 20:03:04.272066: W tensorflow/stream_executor/platform/default/dso_loader.cc:59] Could not load dynamic library 'libcudart.so.10.1'
; dlderror: libcudart.so.10.1: cannot open shared object file: No such file or directory
2021-06-26 20:03:04.272159: I tensorflow/stream_executor/cuda/cudart_stub.cc:29] Ignore above cudart dlerror if you do not have a GPU set up o
n your machine.
2021-06-26 20:03:06.366784: W tensorflow/stream_executor/platform/default/dso_loader.cc:59] Could not load dynamic library 'libcudart.so.1'; dle
rror: libcudart.so.1: cannot open shared object file: No such file or directory
2021-06-26 20:03:06.366880: W tensorflow/stream_executor/cuda/cuda_driver.cc:312] failed call to cuInit: UNKNOWN ERROR (303)
2021-06-26 20:03:06.366932: I tensorflow/stream_executor/cuda/cuda_diagnostics.cc:156] kernel driver does not appear to be running on this hos
t (king): /proc/driver/nvidia/version does not exist
2021-06-26 20:03:06.456228: I tensorflow/core/platform/cpu_feature_guard.cc:142] This TensorFlow binary is optimized with oneAPI Deep Neural N
etwork Library (oneDNN) to use the following CPU instructions in performance-critical operations: FMA
To enable them in other operations, rebuild TensorFlow with the appropriate compiler flags.
2021-06-26 20:03:06.491539: I tensorflow/compiler/xla/service/service.cc:168] XLA service 0x564c520a4800 initialized for platform Host (this d
oes not guarantee that XLA will be used). Devices:
2021-06-26 20:03:06.492250: I tensorflow/core/platform/profile_utils/cpu_utils.cc:104] CPU Frequency: 2495575000 Hz
2021-06-26 20:03:47.816924: W tensorflow/core/framework/cpu_allocator_impl.cc:81] Allocation of 18874368 exceeds 10% of free system memory.
2021-06-26 20:03:48.384613: W tensorflow/core/framework/cpu_allocator_impl.cc:81] Allocation of 18874368 exceeds 10% of free system memory.
2021-06-26 20:03:49.166971: W tensorflow/core/framework/cpu_allocator_impl.cc:81] Allocation of 18874368 exceeds 10% of free system memory.
2021-06-26 20:03:49.475112: W tensorflow/core/framework/cpu_allocator_impl.cc:81] Allocation of 18874368 exceeds 10% of free system memory.
OpenCV: FFMPEG: tag 0x44495658/'XVID' is not supported with codec id 12 and format 'mp4 / MP4 (MPEG-4 Part 14)'
OpenCV: FFMPEG: fallback to use tag 0x7634706d/'mp4v'
FPS: 0.07
FPS: 0.16
FPS: 0.16
FPS: 0.16
FPS: 0.16
FPS: 0.16
FPS: 0.16
FPS: 0.15
FPS: 0.16
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I have tested new model with cpu , it give more accuracy and same FPS than previous one .