INFO:botocore.credentials:Found credentials from IAM Role: BaseNotebookInstanceEc2InstanceRole

Using provided s3\_resource

INFO:sagemaker:Creating training-job with name: tf2-object-detection-2023-08-17-20-30-31-039

2023-08-17 20:30:33 Starting - Starting the training job...

2023-08-17 20:30:50 Starting - Preparing the instances for training......

2023-08-17 20:31:59 Downloading - Downloading input data...

2023-08-17 20:32:29 Training - Downloading the training image.........

2023-08-17 20:34:00 Training - Training image download completed. Training in progress....2023-08-17 20:34:29,078 sagemaker-training-toolkit INFO No GPUs detected (normal if no gpus installed)

2023-08-17 20:34:29,081 sagemaker-training-toolkit INFO No Neurons detected (normal if no neurons installed)

2023-08-17 20:34:29,094 sagemaker-training-toolkit INFO No GPUs detected (normal if no gpus installed)

2023-08-17 20:34:29,096 sagemaker-training-toolkit INFO No Neurons detected (normal if no neurons installed)

2023-08-17 20:34:29,110 sagemaker-training-toolkit INFO No GPUs detected (normal if no gpus installed)

2023-08-17 20:34:29,112 sagemaker-training-toolkit INFO No Neurons detected (normal if no neurons installed)

2023-08-17 20:34:29,123 sagemaker-training-toolkit INFO Invoking user script

Training Env:

{

"additional\_framework\_parameters": {},

"channel\_input\_dirs": {

"train": "/opt/ml/input/data/train",

"val": "/opt/ml/input/data/val"

},

"current\_host": "algo-1",

"current\_instance\_group": "homogeneousCluster",

"current\_instance\_group\_hosts": [

"algo-1"

],

"current\_instance\_type": "ml.m5.2xlarge",

"distribution\_hosts": [],

"distribution\_instance\_groups": [],

"framework\_module": null,

"hosts": [

"algo-1"

],

"hyperparameters": {

"model\_dir": "/opt/training",

"num\_train\_steps": "2000",

"pipeline\_config\_path": "pipeline.config",

"sample\_1\_of\_n\_eval\_examples": "1"

},

"input\_config\_dir": "/opt/ml/input/config",

"input\_data\_config": {

"train": {

"TrainingInputMode": "File",

"S3DistributionType": "FullyReplicated",

"RecordWrapperType": "None"

},

"val": {

"TrainingInputMode": "File",

"S3DistributionType": "FullyReplicated",

"RecordWrapperType": "None"

}

},

"input\_dir": "/opt/ml/input",

"instance\_groups": [

"homogeneousCluster"

],

"instance\_groups\_dict": {

"homogeneousCluster": {

"instance\_group\_name": "homogeneousCluster",

"instance\_type": "ml.m5.2xlarge",

"hosts": [

"algo-1"

]

}

},

"is\_hetero": false,

"is\_master": true,

"is\_modelparallel\_enabled": null,

"is\_smddpmprun\_installed": false,

"job\_name": "tf2-object-detection-2023-08-17-20-30-31-039",

"log\_level": 20,

"master\_hostname": "algo-1",

"model\_dir": "/opt/ml/model",

"module\_dir": "s3://sagemaker-us-east-1-789453636658/tf2-object-detection-2023-08-17-20-30-31-039/source/sourcedir.tar.gz",

"module\_name": "run\_training.sh",

"network\_interface\_name": "eth0",

"num\_cpus": 8,

"num\_gpus": 0,

"num\_neurons": 0,

"output\_data\_dir": "/opt/ml/output/data",

"output\_dir": "/opt/ml/output",

"output\_intermediate\_dir": "/opt/ml/output/intermediate",

"resource\_config": {

"current\_host": "algo-1",

"current\_instance\_type": "ml.m5.2xlarge",

"current\_group\_name": "homogeneousCluster",

"hosts": [

"algo-1"

],

"instance\_groups": [

{

"instance\_group\_name": "homogeneousCluster",

"instance\_type": "ml.m5.2xlarge",

"hosts": [

"algo-1"

]

}

],

"network\_interface\_name": "eth0"

},

"user\_entry\_point": "run\_training.sh"

}

Environment variables:

SM\_HOSTS=["algo-1"]

SM\_NETWORK\_INTERFACE\_NAME=eth0

SM\_HPS={"model\_dir":"/opt/training","num\_train\_steps":"2000","pipeline\_config\_path":"pipeline.config","sample\_1\_of\_n\_eval\_examples":"1"}

SM\_USER\_ENTRY\_POINT=run\_training.sh

SM\_FRAMEWORK\_PARAMS={}

SM\_RESOURCE\_CONFIG={"current\_group\_name":"homogeneousCluster","current\_host":"algo-1","current\_instance\_type":"ml.m5.2xlarge","hosts":["algo-1"],"instance\_groups":[{"hosts":["algo-1"],"instance\_group\_name":"homogeneousCluster","instance\_type":"ml.m5.2xlarge"}],"network\_interface\_name":"eth0"}

SM\_INPUT\_DATA\_CONFIG={"train":{"RecordWrapperType":"None","S3DistributionType":"FullyReplicated","TrainingInputMode":"File"},"val":{"RecordWrapperType":"None","S3DistributionType":"FullyReplicated","TrainingInputMode":"File"}}

SM\_OUTPUT\_DATA\_DIR=/opt/ml/output/data

SM\_CHANNELS=["train","val"]

SM\_CURRENT\_HOST=algo-1

SM\_CURRENT\_INSTANCE\_TYPE=ml.m5.2xlarge

SM\_CURRENT\_INSTANCE\_GROUP=homogeneousCluster

SM\_CURRENT\_INSTANCE\_GROUP\_HOSTS=["algo-1"]

SM\_INSTANCE\_GROUPS=["homogeneousCluster"]

SM\_INSTANCE\_GROUPS\_DICT={"homogeneousCluster":{"hosts":["algo-1"],"instance\_group\_name":"homogeneousCluster","instance\_type":"ml.m5.2xlarge"}}

SM\_DISTRIBUTION\_INSTANCE\_GROUPS=[]

SM\_IS\_HETERO=false

SM\_MODULE\_NAME=run\_training.sh

SM\_LOG\_LEVEL=20

SM\_FRAMEWORK\_MODULE=

SM\_INPUT\_DIR=/opt/ml/input

SM\_INPUT\_CONFIG\_DIR=/opt/ml/input/config

SM\_OUTPUT\_DIR=/opt/ml/output

SM\_NUM\_CPUS=8

SM\_NUM\_GPUS=0

SM\_NUM\_NEURONS=0

SM\_MODEL\_DIR=/opt/ml/model

SM\_MODULE\_DIR=s3://sagemaker-us-east-1-789453636658/tf2-object-detection-2023-08-17-20-30-31-039/source/sourcedir.tar.gz

SM\_TRAINING\_ENV={"additional\_framework\_parameters":{},"channel\_input\_dirs":{"train":"/opt/ml/input/data/train","val":"/opt/ml/input/data/val"},"current\_host":"algo-1","current\_instance\_group":"homogeneousCluster","current\_instance\_group\_hosts":["algo-1"],"current\_instance\_type":"ml.m5.2xlarge","distribution\_hosts":[],"distribution\_instance\_groups":[],"framework\_module":null,"hosts":["algo-1"],"hyperparameters":{"model\_dir":"/opt/training","num\_train\_steps":"2000","pipeline\_config\_path":"pipeline.config","sample\_1\_of\_n\_eval\_examples":"1"},"input\_config\_dir":"/opt/ml/input/config","input\_data\_config":{"train":{"RecordWrapperType":"None","S3DistributionType":"FullyReplicated","TrainingInputMode":"File"},"val":{"RecordWrapperType":"None","S3DistributionType":"FullyReplicated","TrainingInputMode":"File"}},"input\_dir":"/opt/ml/input","instance\_groups":["homogeneousCluster"],"instance\_groups\_dict":{"homogeneousCluster":{"hosts":["algo-1"],"instance\_group\_name":"homogeneousCluster","instance\_type":"ml.m5.2xlarge"}},"is\_hetero":false,"is\_master":true,"is\_modelparallel\_enabled":null,"is\_smddpmprun\_installed":false,"job\_name":"tf2-object-detection-2023-08-17-20-30-31-039","log\_level":20,"master\_hostname":"algo-1","model\_dir":"/opt/ml/model","module\_dir":"s3://sagemaker-us-east-1-789453636658/tf2-object-detection-2023-08-17-20-30-31-039/source/sourcedir.tar.gz","module\_name":"run\_training.sh","network\_interface\_name":"eth0","num\_cpus":8,"num\_gpus":0,"num\_neurons":0,"output\_data\_dir":"/opt/ml/output/data","output\_dir":"/opt/ml/output","output\_intermediate\_dir":"/opt/ml/output/intermediate","resource\_config":{"current\_group\_name":"homogeneousCluster","current\_host":"algo-1","current\_instance\_type":"ml.m5.2xlarge","hosts":["algo-1"],"instance\_groups":[{"hosts":["algo-1"],"instance\_group\_name":"homogeneousCluster","instance\_type":"ml.m5.2xlarge"}],"network\_interface\_name":"eth0"},"user\_entry\_point":"run\_training.sh"}

SM\_USER\_ARGS=["--model\_dir","/opt/training","--num\_train\_steps","2000","--pipeline\_config\_path","pipeline.config","--sample\_1\_of\_n\_eval\_examples","1"]

SM\_OUTPUT\_INTERMEDIATE\_DIR=/opt/ml/output/intermediate

SM\_CHANNEL\_TRAIN=/opt/ml/input/data/train

SM\_CHANNEL\_VAL=/opt/ml/input/data/val

SM\_HP\_MODEL\_DIR=/opt/training

SM\_HP\_NUM\_TRAIN\_STEPS=2000

SM\_HP\_PIPELINE\_CONFIG\_PATH=pipeline.config

SM\_HP\_SAMPLE\_1\_OF\_N\_EVAL\_EXAMPLES=1

PYTHONPATH=/opt/ml/code:/usr/local/bin:/usr/lib/python38.zip:/usr/lib/python3.8:/usr/lib/python3.8/lib-dynload:/usr/local/lib/python3.8/dist-packages:/usr/lib/python3/dist-packages

Invoking script with the following command:

/bin/sh -c "./run\_training.sh --model\_dir /opt/training --num\_train\_steps 2000 --pipeline\_config\_path pipeline.config --sample\_1\_of\_n\_eval\_examples 1"

2023-08-17 20:34:29,124 sagemaker-training-toolkit INFO Exceptions not imported for SageMaker Debugger as it is not installed.

===TRAINING THE MODEL==

INFO:tensorflow:Using MirroredStrategy with devices ('/job:localhost/replica:0/task:0/device:CPU:0',)

I0817 20:34:34.810281 139674134546240 mirrored\_strategy.py:419] Using MirroredStrategy with devices ('/job:localhost/replica:0/task:0/device:CPU:0',)

INFO:tensorflow:Maybe overwriting train\_steps: 2000

I0817 20:34:34.831810 139674134546240 config\_util.py:552] Maybe overwriting train\_steps: 2000

INFO:tensorflow:Maybe overwriting use\_bfloat16: False

I0817 20:34:34.831932 139674134546240 config\_util.py:552] Maybe overwriting use\_bfloat16: False

I0817 20:34:34.840614 139674134546240 ssd\_efficientnet\_bifpn\_feature\_extractor.py:150] EfficientDet EfficientNet backbone version: efficientnet-b1

I0817 20:34:34.840708 139674134546240 ssd\_efficientnet\_bifpn\_feature\_extractor.py:152] EfficientDet BiFPN num filters: 88

I0817 20:34:34.840765 139674134546240 ssd\_efficientnet\_bifpn\_feature\_extractor.py:153] EfficientDet BiFPN num iterations: 4

I0817 20:34:34.844524 139674134546240 efficientnet\_model.py:143] round\_filter input=32 output=32

I0817 20:34:34.881053 139674134546240 efficientnet\_model.py:143] round\_filter input=32 output=32

I0817 20:34:34.881154 139674134546240 efficientnet\_model.py:143] round\_filter input=16 output=16

I0817 20:34:35.064601 139674134546240 efficientnet\_model.py:143] round\_filter input=16 output=16

I0817 20:34:35.064723 139674134546240 efficientnet\_model.py:143] round\_filter input=24 output=24

I0817 20:34:35.412758 139674134546240 efficientnet\_model.py:143] round\_filter input=24 output=24

I0817 20:34:35.412893 139674134546240 efficientnet\_model.py:143] round\_filter input=40 output=40

I0817 20:34:35.754693 139674134546240 efficientnet\_model.py:143] round\_filter input=40 output=40

I0817 20:34:35.754829 139674134546240 efficientnet\_model.py:143] round\_filter input=80 output=80

I0817 20:34:36.211044 139674134546240 efficientnet\_model.py:143] round\_filter input=80 output=80

I0817 20:34:36.211186 139674134546240 efficientnet\_model.py:143] round\_filter input=112 output=112

I0817 20:34:36.651876 139674134546240 efficientnet\_model.py:143] round\_filter input=112 output=112

I0817 20:34:36.652019 139674134546240 efficientnet\_model.py:143] round\_filter input=192 output=192

I0817 20:34:37.367166 139674134546240 efficientnet\_model.py:143] round\_filter input=192 output=192

I0817 20:34:37.367315 139674134546240 efficientnet\_model.py:143] round\_filter input=320 output=320

I0817 20:34:37.601535 139674134546240 efficientnet\_model.py:143] round\_filter input=1280 output=1280

I0817 20:34:37.655103 139674134546240 efficientnet\_model.py:453] Building model efficientnet with params ModelConfig(width\_coefficient=1.0, depth\_coefficient=1.1, resolution=240, dropout\_rate=0.2, blocks=(BlockConfig(input\_filters=32, output\_filters=16, kernel\_size=3, num\_repeat=1, expand\_ratio=1, strides=(1, 1), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=16, output\_filters=24, kernel\_size=3, num\_repeat=2, expand\_ratio=6, strides=(2, 2), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=24, output\_filters=40, kernel\_size=5, num\_repeat=2, expand\_ratio=6, strides=(2, 2), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=40, output\_filters=80, kernel\_size=3, num\_repeat=3, expand\_ratio=6, strides=(2, 2), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=80, output\_filters=112, kernel\_size=5, num\_repeat=3, expand\_ratio=6, strides=(1, 1), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=112, output\_filters=192, kernel\_size=5, num\_repeat=4, expand\_ratio=6, strides=(2, 2), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=192, output\_filters=320, kernel\_size=3, num\_repeat=1, expand\_ratio=6, strides=(1, 1), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise')), stem\_base\_filters=32, top\_base\_filters=1280, activation='simple\_swish', batch\_norm='default', bn\_momentum=0.99, bn\_epsilon=0.001, weight\_decay=5e-06, drop\_connect\_rate=0.2, depth\_divisor=8, min\_depth=None, use\_se=True, input\_channels=3, num\_classes=1000, model\_name='efficientnet', rescale\_input=False, data\_format='channels\_last', dtype='float32')

WARNING:tensorflow:From /usr/local/lib/python3.8/dist-packages/object\_detection/model\_lib\_v2.py:563: StrategyBase.experimental\_distribute\_datasets\_from\_function (from tensorflow.python.distribute.distribute\_lib) is deprecated and will be removed in a future version.

Instructions for updating:

rename to distribute\_datasets\_from\_function

W0817 20:34:37.703879 139674134546240 deprecation.py:364] From /usr/local/lib/python3.8/dist-packages/object\_detection/model\_lib\_v2.py:563: StrategyBase.experimental\_distribute\_datasets\_from\_function (from tensorflow.python.distribute.distribute\_lib) is deprecated and will be removed in a future version.

Instructions for updating:

rename to distribute\_datasets\_from\_function

INFO:tensorflow:Reading unweighted datasets: ['/opt/ml/input/data/train/\*.tfrecord']

I0817 20:34:37.710277 139674134546240 dataset\_builder.py:162] Reading unweighted datasets: ['/opt/ml/input/data/train/\*.tfrecord']

INFO:tensorflow:Reading record datasets for input file: ['/opt/ml/input/data/train/\*.tfrecord']

I0817 20:34:37.711879 139674134546240 dataset\_builder.py:79] Reading record datasets for input file: ['/opt/ml/input/data/train/\*.tfrecord']

INFO:tensorflow:Number of filenames to read: 84

I0817 20:34:37.711978 139674134546240 dataset\_builder.py:80] Number of filenames to read: 84

WARNING:tensorflow:From /usr/local/lib/python3.8/dist-packages/object\_detection/builders/dataset\_builder.py:100: parallel\_interleave (from tensorflow.python.data.experimental.ops.interleave\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.data.Dataset.interleave(map\_func, cycle\_length, block\_length, num\_parallel\_calls=tf.data.AUTOTUNE)` instead. If sloppy execution is desired, use `tf.data.Options.deterministic`.

W0817 20:34:37.718459 139674134546240 deprecation.py:364] From /usr/local/lib/python3.8/dist-packages/object\_detection/builders/dataset\_builder.py:100: parallel\_interleave (from tensorflow.python.data.experimental.ops.interleave\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.data.Dataset.interleave(map\_func, cycle\_length, block\_length, num\_parallel\_calls=tf.data.AUTOTUNE)` instead. If sloppy execution is desired, use `tf.data.Options.deterministic`.

WARNING:tensorflow:From /usr/local/lib/python3.8/dist-packages/object\_detection/builders/dataset\_builder.py:235: DatasetV1.map\_with\_legacy\_function (from tensorflow.python.data.ops.dataset\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.data.Dataset.map()

W0817 20:34:37.734889 139674134546240 deprecation.py:364] From /usr/local/lib/python3.8/dist-packages/object\_detection/builders/dataset\_builder.py:235: DatasetV1.map\_with\_legacy\_function (from tensorflow.python.data.ops.dataset\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.data.Dataset.map()

WARNING:tensorflow:From /usr/local/lib/python3.8/dist-packages/tensorflow/python/util/dispatch.py:1176: sparse\_to\_dense (from tensorflow.python.ops.sparse\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Create a `tf.sparse.SparseTensor` and use `tf.sparse.to\_dense` instead.

W0817 20:34:43.572549 139674134546240 deprecation.py:364] From /usr/local/lib/python3.8/dist-packages/tensorflow/python/util/dispatch.py:1176: sparse\_to\_dense (from tensorflow.python.ops.sparse\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Create a `tf.sparse.SparseTensor` and use `tf.sparse.to\_dense` instead.

WARNING:tensorflow:From /usr/local/lib/python3.8/dist-packages/tensorflow/python/util/dispatch.py:1176: to\_float (from tensorflow.python.ops.math\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.cast` instead.

W0817 20:34:46.877819 139674134546240 deprecation.py:364] From /usr/local/lib/python3.8/dist-packages/tensorflow/python/util/dispatch.py:1176: to\_float (from tensorflow.python.ops.math\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.cast` instead.

/usr/local/lib/python3.8/dist-packages/keras/src/backend.py:452: UserWarning: `tf.keras.backend.set\_learning\_phase` is deprecated and will be removed after 2020-10-11. To update it, simply pass a True/False value to the `training` argument of the `\_\_call\_\_` method of your layer or model.

warnings.warn(

I0817 20:34:54.379162 139669564020480 api.py:460] feature\_map\_spatial\_dims: [(80, 80), (40, 40), (20, 20), (10, 10), (5, 5)]

I0817 20:35:04.626584 139669564020480 api.py:460] feature\_map\_spatial\_dims: [(80, 80), (40, 40), (20, 20), (10, 10), (5, 5)]

WARNING:tensorflow:From /usr/local/lib/python3.8/dist-packages/tensorflow/python/util/deprecation.py:648: calling map\_fn\_v2 (from tensorflow.python.ops.map\_fn) with dtype is deprecated and will be removed in a future version.

Instructions for updating:

Use fn\_output\_signature instead

W0817 20:35:17.112782 139669585000192 deprecation.py:569] From /usr/local/lib/python3.8/dist-packages/tensorflow/python/util/deprecation.py:648: calling map\_fn\_v2 (from tensorflow.python.ops.map\_fn) with dtype is deprecated and will be removed in a future version.

Instructions for updating:

Use fn\_output\_signature instead

I0817 20:35:19.884808 139669585000192 api.py:460] feature\_map\_spatial\_dims: [(80, 80), (40, 40), (20, 20), (10, 10), (5, 5)]

WARNING:tensorflow:Gradients do not exist for variables ['stack\_6/block\_1/expand\_bn/gamma:0', 'stack\_6/block\_1/expand\_bn/beta:0', 'stack\_6/block\_1/depthwise\_conv2d/depthwise\_kernel:0', 'stack\_6/block\_1/depthwise\_bn/gamma:0', 'stack\_6/block\_1/depthwise\_bn/beta:0', 'stack\_6/block\_1/project\_bn/gamma:0', 'stack\_6/block\_1/project\_bn/beta:0', 'top\_bn/gamma:0', 'top\_bn/beta:0'] when minimizing the loss. If you're using `model.compile()`, did you forget to provide a `loss` argument?

W0817 20:35:27.316856 139669585000192 utils.py:82] Gradients do not exist for variables ['stack\_6/block\_1/expand\_bn/gamma:0', 'stack\_6/block\_1/expand\_bn/beta:0', 'stack\_6/block\_1/depthwise\_conv2d/depthwise\_kernel:0', 'stack\_6/block\_1/depthwise\_bn/gamma:0', 'stack\_6/block\_1/depthwise\_bn/beta:0', 'stack\_6/block\_1/project\_bn/gamma:0', 'stack\_6/block\_1/project\_bn/beta:0', 'top\_bn/gamma:0', 'top\_bn/beta:0'] when minimizing the loss. If you're using `model.compile()`, did you forget to provide a `loss` argument?

I0817 20:35:32.718409 139669585000192 api.py:460] feature\_map\_spatial\_dims: [(80, 80), (40, 40), (20, 20), (10, 10), (5, 5)]

WARNING:tensorflow:Gradients do not exist for variables ['stack\_6/block\_1/expand\_bn/gamma:0', 'stack\_6/block\_1/expand\_bn/beta:0', 'stack\_6/block\_1/depthwise\_conv2d/depthwise\_kernel:0', 'stack\_6/block\_1/depthwise\_bn/gamma:0', 'stack\_6/block\_1/depthwise\_bn/beta:0', 'stack\_6/block\_1/project\_bn/gamma:0', 'stack\_6/block\_1/project\_bn/beta:0', 'top\_bn/gamma:0', 'top\_bn/beta:0'] when minimizing the loss. If you're using `model.compile()`, did you forget to provide a `loss` argument?

W0817 20:35:40.007117 139669585000192 utils.py:82] Gradients do not exist for variables ['stack\_6/block\_1/expand\_bn/gamma:0', 'stack\_6/block\_1/expand\_bn/beta:0', 'stack\_6/block\_1/depthwise\_conv2d/depthwise\_kernel:0', 'stack\_6/block\_1/depthwise\_bn/gamma:0', 'stack\_6/block\_1/depthwise\_bn/beta:0', 'stack\_6/block\_1/project\_bn/gamma:0', 'stack\_6/block\_1/project\_bn/beta:0', 'top\_bn/gamma:0', 'top\_bn/beta:0'] when minimizing the loss. If you're using `model.compile()`, did you forget to provide a `loss` argument?

I0817 20:35:44.417630 139669585000192 api.py:460] feature\_map\_spatial\_dims: [(80, 80), (40, 40), (20, 20), (10, 10), (5, 5)]

WARNING:tensorflow:Gradients do not exist for variables ['stack\_6/block\_1/expand\_bn/gamma:0', 'stack\_6/block\_1/expand\_bn/beta:0', 'stack\_6/block\_1/depthwise\_conv2d/depthwise\_kernel:0', 'stack\_6/block\_1/depthwise\_bn/gamma:0', 'stack\_6/block\_1/depthwise\_bn/beta:0', 'stack\_6/block\_1/project\_bn/gamma:0', 'stack\_6/block\_1/project\_bn/beta:0', 'top\_bn/gamma:0', 'top\_bn/beta:0'] when minimizing the loss. If you're using `model.compile()`, did you forget to provide a `loss` argument?

W0817 20:35:51.364097 139669585000192 utils.py:82] Gradients do not exist for variables ['stack\_6/block\_1/expand\_bn/gamma:0', 'stack\_6/block\_1/expand\_bn/beta:0', 'stack\_6/block\_1/depthwise\_conv2d/depthwise\_kernel:0', 'stack\_6/block\_1/depthwise\_bn/gamma:0', 'stack\_6/block\_1/depthwise\_bn/beta:0', 'stack\_6/block\_1/project\_bn/gamma:0', 'stack\_6/block\_1/project\_bn/beta:0', 'top\_bn/gamma:0', 'top\_bn/beta:0'] when minimizing the loss. If you're using `model.compile()`, did you forget to provide a `loss` argument?

I0817 20:35:56.880325 139669585000192 api.py:460] feature\_map\_spatial\_dims: [(80, 80), (40, 40), (20, 20), (10, 10), (5, 5)]

WARNING:tensorflow:Gradients do not exist for variables ['stack\_6/block\_1/expand\_bn/gamma:0', 'stack\_6/block\_1/expand\_bn/beta:0', 'stack\_6/block\_1/depthwise\_conv2d/depthwise\_kernel:0', 'stack\_6/block\_1/depthwise\_bn/gamma:0', 'stack\_6/block\_1/depthwise\_bn/beta:0', 'stack\_6/block\_1/project\_bn/gamma:0', 'stack\_6/block\_1/project\_bn/beta:0', 'top\_bn/gamma:0', 'top\_bn/beta:0'] when minimizing the loss. If you're using `model.compile()`, did you forget to provide a `loss` argument?

W0817 20:36:03.876111 139669585000192 utils.py:82] Gradients do not exist for variables ['stack\_6/block\_1/expand\_bn/gamma:0', 'stack\_6/block\_1/expand\_bn/beta:0', 'stack\_6/block\_1/depthwise\_conv2d/depthwise\_kernel:0', 'stack\_6/block\_1/depthwise\_bn/gamma:0', 'stack\_6/block\_1/depthwise\_bn/beta:0', 'stack\_6/block\_1/project\_bn/gamma:0', 'stack\_6/block\_1/project\_bn/beta:0', 'top\_bn/gamma:0', 'top\_bn/beta:0'] when minimizing the loss. If you're using `model.compile()`, did you forget to provide a `loss` argument?

INFO:tensorflow:Step 100 per-step time 7.758s

I0817 20:48:12.546573 139674134546240 model\_lib\_v2.py:705] Step 100 per-step time 7.758s

INFO:tensorflow:{'Loss/classification\_loss': 0.35805565,

'Loss/localization\_loss': 0.038018152,

'Loss/regularization\_loss': 0.029542169,

'Loss/total\_loss': 0.425616,

'learning\_rate': 0.00416}

I0817 20:48:12.546894 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.35805565,

'Loss/localization\_loss': 0.038018152,

'Loss/regularization\_loss': 0.029542169,

'Loss/total\_loss': 0.425616,

'learning\_rate': 0.00416}

INFO:tensorflow:Step 200 per-step time 7.000s

I0817 20:59:52.526311 139674134546240 model\_lib\_v2.py:705] Step 200 per-step time 7.000s

INFO:tensorflow:{'Loss/classification\_loss': 0.35984257,

'Loss/localization\_loss': 0.026076043,

'Loss/regularization\_loss': 0.029544145,

'Loss/total\_loss': 0.41546276,

'learning\_rate': 0.0073200003}

I0817 20:59:52.526575 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.35984257,

'Loss/localization\_loss': 0.026076043,

'Loss/regularization\_loss': 0.029544145,

'Loss/total\_loss': 0.41546276,

'learning\_rate': 0.0073200003}

INFO:tensorflow:Step 300 per-step time 7.014s

I0817 21:11:33.905983 139674134546240 model\_lib\_v2.py:705] Step 300 per-step time 7.014s

INFO:tensorflow:{'Loss/classification\_loss': 0.28107458,

'Loss/localization\_loss': 0.025791163,

'Loss/regularization\_loss': 0.029547118,

'Loss/total\_loss': 0.33641288,

'learning\_rate': 0.010480001}

I0817 21:11:33.906237 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.28107458,

'Loss/localization\_loss': 0.025791163,

'Loss/regularization\_loss': 0.029547118,

'Loss/total\_loss': 0.33641288,

'learning\_rate': 0.010480001}

INFO:tensorflow:Step 400 per-step time 6.998s

I0817 21:23:13.689984 139674134546240 model\_lib\_v2.py:705] Step 400 per-step time 6.998s

INFO:tensorflow:{'Loss/classification\_loss': 0.30356172,

'Loss/localization\_loss': 0.016631898,

'Loss/regularization\_loss': 0.029553022,

'Loss/total\_loss': 0.34974664,

'learning\_rate': 0.0136400005}

I0817 21:23:13.690304 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.30356172,

'Loss/localization\_loss': 0.016631898,

'Loss/regularization\_loss': 0.029553022,

'Loss/total\_loss': 0.34974664,

'learning\_rate': 0.0136400005}

INFO:tensorflow:Step 500 per-step time 7.001s

I0817 21:34:53.838263 139674134546240 model\_lib\_v2.py:705] Step 500 per-step time 7.001s

INFO:tensorflow:{'Loss/classification\_loss': 0.23995298,

'Loss/localization\_loss': 0.013223542,

'Loss/regularization\_loss': 0.029566094,

'Loss/total\_loss': 0.28274262,

'learning\_rate': 0.016800001}

I0817 21:34:53.838545 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.23995298,

'Loss/localization\_loss': 0.013223542,

'Loss/regularization\_loss': 0.029566094,

'Loss/total\_loss': 0.28274262,

'learning\_rate': 0.016800001}

INFO:tensorflow:Step 600 per-step time 6.991s

I0817 21:46:32.964739 139674134546240 model\_lib\_v2.py:705] Step 600 per-step time 6.991s

INFO:tensorflow:{'Loss/classification\_loss': 0.2857659,

'Loss/localization\_loss': 0.016088683,

'Loss/regularization\_loss': 0.029575897,

'Loss/total\_loss': 0.33143046,

'learning\_rate': 0.019960001}

I0817 21:46:32.965036 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.2857659,

'Loss/localization\_loss': 0.016088683,

'Loss/regularization\_loss': 0.029575897,

'Loss/total\_loss': 0.33143046,

'learning\_rate': 0.019960001}

INFO:tensorflow:Step 700 per-step time 6.998s

I0817 21:58:12.769952 139674134546240 model\_lib\_v2.py:705] Step 700 per-step time 6.998s

INFO:tensorflow:{'Loss/classification\_loss': 0.29597974,

'Loss/localization\_loss': 0.017700853,

'Loss/regularization\_loss': 0.029601853,

'Loss/total\_loss': 0.34328243,

'learning\_rate': 0.023120001}

I0817 21:58:12.770225 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.29597974,

'Loss/localization\_loss': 0.017700853,

'Loss/regularization\_loss': 0.029601853,

'Loss/total\_loss': 0.34328243,

'learning\_rate': 0.023120001}

INFO:tensorflow:Step 800 per-step time 6.985s

I0817 22:09:51.306889 139674134546240 model\_lib\_v2.py:705] Step 800 per-step time 6.985s

INFO:tensorflow:{'Loss/classification\_loss': 0.30118534,

'Loss/localization\_loss': 0.014252087,

'Loss/regularization\_loss': 0.029644039,

'Loss/total\_loss': 0.34508145,

'learning\_rate': 0.02628}

I0817 22:09:51.307174 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.30118534,

'Loss/localization\_loss': 0.014252087,

'Loss/regularization\_loss': 0.029644039,

'Loss/total\_loss': 0.34508145,

'learning\_rate': 0.02628}

INFO:tensorflow:Step 900 per-step time 6.979s

I0817 22:21:29.170491 139674134546240 model\_lib\_v2.py:705] Step 900 per-step time 6.979s

INFO:tensorflow:{'Loss/classification\_loss': 0.21882412,

'Loss/localization\_loss': 0.015510333,

'Loss/regularization\_loss': 0.029676257,

'Loss/total\_loss': 0.2640107,

'learning\_rate': 0.02944}

I0817 22:21:29.170755 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.21882412,

'Loss/localization\_loss': 0.015510333,

'Loss/regularization\_loss': 0.029676257,

'Loss/total\_loss': 0.2640107,

'learning\_rate': 0.02944}

INFO:tensorflow:Step 1000 per-step time 6.981s

I0817 22:33:07.301418 139674134546240 model\_lib\_v2.py:705] Step 1000 per-step time 6.981s

INFO:tensorflow:{'Loss/classification\_loss': 0.24495263,

'Loss/localization\_loss': 0.016854454,

'Loss/regularization\_loss': 0.029710578,

'Loss/total\_loss': 0.29151767,

'learning\_rate': 0.0326}

I0817 22:33:07.301725 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.24495263,

'Loss/localization\_loss': 0.016854454,

'Loss/regularization\_loss': 0.029710578,

'Loss/total\_loss': 0.29151767,

'learning\_rate': 0.0326}

INFO:tensorflow:Step 1100 per-step time 6.997s

I0817 22:44:47.038203 139674134546240 model\_lib\_v2.py:705] Step 1100 per-step time 6.997s

INFO:tensorflow:{'Loss/classification\_loss': 0.29089886,

'Loss/localization\_loss': 0.016672585,

'Loss/regularization\_loss': 0.029772138,

'Loss/total\_loss': 0.33734357,

'learning\_rate': 0.03576}

I0817 22:44:47.038495 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.29089886,

'Loss/localization\_loss': 0.016672585,

'Loss/regularization\_loss': 0.029772138,

'Loss/total\_loss': 0.33734357,

'learning\_rate': 0.03576}

INFO:tensorflow:Step 1200 per-step time 6.978s

I0817 22:56:24.860610 139674134546240 model\_lib\_v2.py:705] Step 1200 per-step time 6.978s

INFO:tensorflow:{'Loss/classification\_loss': 0.26816094,

'Loss/localization\_loss': 0.016043117,

'Loss/regularization\_loss': 0.029829556,

'Loss/total\_loss': 0.31403363,

'learning\_rate': 0.03892}

I0817 22:56:24.860875 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.26816094,

'Loss/localization\_loss': 0.016043117,

'Loss/regularization\_loss': 0.029829556,

'Loss/total\_loss': 0.31403363,

'learning\_rate': 0.03892}

INFO:tensorflow:Step 1300 per-step time 7.004s

I0817 23:08:05.212317 139674134546240 model\_lib\_v2.py:705] Step 1300 per-step time 7.004s

INFO:tensorflow:{'Loss/classification\_loss': 0.32959345,

'Loss/localization\_loss': 0.017516356,

'Loss/regularization\_loss': 0.029906003,

'Loss/total\_loss': 0.3770158,

'learning\_rate': 0.04208}

I0817 23:08:05.212594 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.32959345,

'Loss/localization\_loss': 0.017516356,

'Loss/regularization\_loss': 0.029906003,

'Loss/total\_loss': 0.3770158,

'learning\_rate': 0.04208}

INFO:tensorflow:Step 1400 per-step time 7.003s

I0817 23:19:45.552298 139674134546240 model\_lib\_v2.py:705] Step 1400 per-step time 7.003s

INFO:tensorflow:{'Loss/classification\_loss': 0.33188775,

'Loss/localization\_loss': 0.015340756,

'Loss/regularization\_loss': 0.02998616,

'Loss/total\_loss': 0.37721467,

'learning\_rate': 0.04524}

I0817 23:19:45.552583 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.33188775,

'Loss/localization\_loss': 0.015340756,

'Loss/regularization\_loss': 0.02998616,

'Loss/total\_loss': 0.37721467,

'learning\_rate': 0.04524}

INFO:tensorflow:Step 1500 per-step time 6.999s

I0817 23:31:25.474557 139674134546240 model\_lib\_v2.py:705] Step 1500 per-step time 6.999s

INFO:tensorflow:{'Loss/classification\_loss': 0.2082902,

'Loss/localization\_loss': 0.013224904,

'Loss/regularization\_loss': 0.030054344,

'Loss/total\_loss': 0.25156945,

'learning\_rate': 0.0484}

I0817 23:31:25.474835 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.2082902,

'Loss/localization\_loss': 0.013224904,

'Loss/regularization\_loss': 0.030054344,

'Loss/total\_loss': 0.25156945,

'learning\_rate': 0.0484}

INFO:tensorflow:Step 1600 per-step time 7.000s

I0817 23:43:05.432503 139674134546240 model\_lib\_v2.py:705] Step 1600 per-step time 7.000s

INFO:tensorflow:{'Loss/classification\_loss': 0.32911196,

'Loss/localization\_loss': 0.013908032,

'Loss/regularization\_loss': 0.030142933,

'Loss/total\_loss': 0.37316293,

'learning\_rate': 0.05156}

I0817 23:43:05.432763 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.32911196,

'Loss/localization\_loss': 0.013908032,

'Loss/regularization\_loss': 0.030142933,

'Loss/total\_loss': 0.37316293,

'learning\_rate': 0.05156}

INFO:tensorflow:Step 1700 per-step time 7.015s

I0817 23:54:46.943836 139674134546240 model\_lib\_v2.py:705] Step 1700 per-step time 7.015s

INFO:tensorflow:{'Loss/classification\_loss': 0.2497263,

'Loss/localization\_loss': 0.014288208,

'Loss/regularization\_loss': 0.030242968,

'Loss/total\_loss': 0.2942575,

'learning\_rate': 0.05472}

I0817 23:54:46.944103 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.2497263,

'Loss/localization\_loss': 0.014288208,

'Loss/regularization\_loss': 0.030242968,

'Loss/total\_loss': 0.2942575,

'learning\_rate': 0.05472}

INFO:tensorflow:Step 1800 per-step time 7.010s

I0818 00:06:27.899603 139674134546240 model\_lib\_v2.py:705] Step 1800 per-step time 7.010s

INFO:tensorflow:{'Loss/classification\_loss': 0.35540766,

'Loss/localization\_loss': 0.022979518,

'Loss/regularization\_loss': 0.03034816,

'Loss/total\_loss': 0.40873533,

'learning\_rate': 0.05788}

I0818 00:06:27.899876 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.35540766,

'Loss/localization\_loss': 0.022979518,

'Loss/regularization\_loss': 0.03034816,

'Loss/total\_loss': 0.40873533,

'learning\_rate': 0.05788}

INFO:tensorflow:Step 1900 per-step time 7.015s

I0818 00:18:09.364534 139674134546240 model\_lib\_v2.py:705] Step 1900 per-step time 7.015s

INFO:tensorflow:{'Loss/classification\_loss': 0.2601493,

'Loss/localization\_loss': 0.014969576,

'Loss/regularization\_loss': 0.03050088,

'Loss/total\_loss': 0.30561975,

'learning\_rate': 0.06104}

I0818 00:18:09.364779 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.2601493,

'Loss/localization\_loss': 0.014969576,

'Loss/regularization\_loss': 0.03050088,

'Loss/total\_loss': 0.30561975,

'learning\_rate': 0.06104}

INFO:tensorflow:Step 2000 per-step time 7.011s

I0818 00:29:50.485121 139674134546240 model\_lib\_v2.py:705] Step 2000 per-step time 7.011s

INFO:tensorflow:{'Loss/classification\_loss': 0.35041115,

'Loss/localization\_loss': 0.018192848,

'Loss/regularization\_loss': 0.030611243,

'Loss/total\_loss': 0.39921525,

'learning\_rate': 0.06420001}

I0818 00:29:50.485372 139674134546240 model\_lib\_v2.py:708] {'Loss/classification\_loss': 0.35041115,

'Loss/localization\_loss': 0.018192848,

'Loss/regularization\_loss': 0.030611243,

'Loss/total\_loss': 0.39921525,

'learning\_rate': 0.06420001}

==EVALUATING THE MODEL==

WARNING:tensorflow:Forced number of epochs for all eval validations to be 1.

W0818 00:29:59.733141 140436034864960 model\_lib\_v2.py:1089] Forced number of epochs for all eval validations to be 1.

INFO:tensorflow:Maybe overwriting sample\_1\_of\_n\_eval\_examples: None

I0818 00:29:59.733303 140436034864960 config\_util.py:552] Maybe overwriting sample\_1\_of\_n\_eval\_examples: None

INFO:tensorflow:Maybe overwriting use\_bfloat16: False

I0818 00:29:59.733364 140436034864960 config\_util.py:552] Maybe overwriting use\_bfloat16: False

INFO:tensorflow:Maybe overwriting eval\_num\_epochs: 1

I0818 00:29:59.733418 140436034864960 config\_util.py:552] Maybe overwriting eval\_num\_epochs: 1

WARNING:tensorflow:Expected number of evaluation epochs is 1, but instead encountered `eval\_on\_train\_input\_config.num\_epochs` = 0. Overwriting `num\_epochs` to 1.

W0818 00:29:59.733523 140436034864960 model\_lib\_v2.py:1106] Expected number of evaluation epochs is 1, but instead encountered `eval\_on\_train\_input\_config.num\_epochs` = 0. Overwriting `num\_epochs` to 1.

I0818 00:29:59.757614 140436034864960 ssd\_efficientnet\_bifpn\_feature\_extractor.py:150] EfficientDet EfficientNet backbone version: efficientnet-b1

I0818 00:29:59.757712 140436034864960 ssd\_efficientnet\_bifpn\_feature\_extractor.py:152] EfficientDet BiFPN num filters: 88

I0818 00:29:59.757767 140436034864960 ssd\_efficientnet\_bifpn\_feature\_extractor.py:153] EfficientDet BiFPN num iterations: 4

I0818 00:29:59.762076 140436034864960 efficientnet\_model.py:143] round\_filter input=32 output=32

I0818 00:29:59.791102 140436034864960 efficientnet\_model.py:143] round\_filter input=32 output=32

I0818 00:29:59.791199 140436034864960 efficientnet\_model.py:143] round\_filter input=16 output=16

I0818 00:29:59.948753 140436034864960 efficientnet\_model.py:143] round\_filter input=16 output=16

I0818 00:29:59.948906 140436034864960 efficientnet\_model.py:143] round\_filter input=24 output=24

I0818 00:30:00.226828 140436034864960 efficientnet\_model.py:143] round\_filter input=24 output=24

I0818 00:30:00.226964 140436034864960 efficientnet\_model.py:143] round\_filter input=40 output=40

I0818 00:30:00.495168 140436034864960 efficientnet\_model.py:143] round\_filter input=40 output=40

I0818 00:30:00.495290 140436034864960 efficientnet\_model.py:143] round\_filter input=80 output=80

I0818 00:30:00.845395 140436034864960 efficientnet\_model.py:143] round\_filter input=80 output=80

I0818 00:30:00.845527 140436034864960 efficientnet\_model.py:143] round\_filter input=112 output=112

I0818 00:30:01.195692 140436034864960 efficientnet\_model.py:143] round\_filter input=112 output=112

I0818 00:30:01.195829 140436034864960 efficientnet\_model.py:143] round\_filter input=192 output=192

I0818 00:30:01.635084 140436034864960 efficientnet\_model.py:143] round\_filter input=192 output=192

I0818 00:30:01.635227 140436034864960 efficientnet\_model.py:143] round\_filter input=320 output=320

I0818 00:30:01.825394 140436034864960 efficientnet\_model.py:143] round\_filter input=1280 output=1280

I0818 00:30:02.033430 140436034864960 efficientnet\_model.py:453] Building model efficientnet with params ModelConfig(width\_coefficient=1.0, depth\_coefficient=1.1, resolution=240, dropout\_rate=0.2, blocks=(BlockConfig(input\_filters=32, output\_filters=16, kernel\_size=3, num\_repeat=1, expand\_ratio=1, strides=(1, 1), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=16, output\_filters=24, kernel\_size=3, num\_repeat=2, expand\_ratio=6, strides=(2, 2), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=24, output\_filters=40, kernel\_size=5, num\_repeat=2, expand\_ratio=6, strides=(2, 2), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=40, output\_filters=80, kernel\_size=3, num\_repeat=3, expand\_ratio=6, strides=(2, 2), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=80, output\_filters=112, kernel\_size=5, num\_repeat=3, expand\_ratio=6, strides=(1, 1), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=112, output\_filters=192, kernel\_size=5, num\_repeat=4, expand\_ratio=6, strides=(2, 2), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=192, output\_filters=320, kernel\_size=3, num\_repeat=1, expand\_ratio=6, strides=(1, 1), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise')), stem\_base\_filters=32, top\_base\_filters=1280, activation='simple\_swish', batch\_norm='default', bn\_momentum=0.99, bn\_epsilon=0.001, weight\_decay=5e-06, drop\_connect\_rate=0.2, depth\_divisor=8, min\_depth=None, use\_se=True, input\_channels=3, num\_classes=1000, model\_name='efficientnet', rescale\_input=False, data\_format='channels\_last', dtype='float32')

INFO:tensorflow:Reading unweighted datasets: ['/opt/ml/input/data/val/\*.tfrecord']

I0818 00:30:02.090037 140436034864960 dataset\_builder.py:162] Reading unweighted datasets: ['/opt/ml/input/data/val/\*.tfrecord']

INFO:tensorflow:Reading record datasets for input file: ['/opt/ml/input/data/val/\*.tfrecord']

I0818 00:30:02.091264 140436034864960 dataset\_builder.py:79] Reading record datasets for input file: ['/opt/ml/input/data/val/\*.tfrecord']

INFO:tensorflow:Number of filenames to read: 13

I0818 00:30:02.091400 140436034864960 dataset\_builder.py:80] Number of filenames to read: 13

WARNING:tensorflow:num\_readers has been reduced to 13 to match input file shards.

W0818 00:30:02.091472 140436034864960 dataset\_builder.py:86] num\_readers has been reduced to 13 to match input file shards.

WARNING:tensorflow:`shuffle` is false, but the input data stream is still slightly shuffled since `num\_readers` > 1.

W0818 00:30:02.093087 140436034864960 dataset\_builder.py:93] `shuffle` is false, but the input data stream is still slightly shuffled since `num\_readers` > 1.

WARNING:tensorflow:From /usr/local/lib/python3.8/dist-packages/object\_detection/builders/dataset\_builder.py:100: parallel\_interleave (from tensorflow.python.data.experimental.ops.interleave\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.data.Dataset.interleave(map\_func, cycle\_length, block\_length, num\_parallel\_calls=tf.data.AUTOTUNE)` instead. If sloppy execution is desired, use `tf.data.Options.deterministic`.

W0818 00:30:02.094589 140436034864960 deprecation.py:364] From /usr/local/lib/python3.8/dist-packages/object\_detection/builders/dataset\_builder.py:100: parallel\_interleave (from tensorflow.python.data.experimental.ops.interleave\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.data.Dataset.interleave(map\_func, cycle\_length, block\_length, num\_parallel\_calls=tf.data.AUTOTUNE)` instead. If sloppy execution is desired, use `tf.data.Options.deterministic`.

WARNING:tensorflow:From /usr/local/lib/python3.8/dist-packages/object\_detection/builders/dataset\_builder.py:235: DatasetV1.map\_with\_legacy\_function (from tensorflow.python.data.ops.dataset\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.data.Dataset.map()

W0818 00:30:02.111770 140436034864960 deprecation.py:364] From /usr/local/lib/python3.8/dist-packages/object\_detection/builders/dataset\_builder.py:235: DatasetV1.map\_with\_legacy\_function (from tensorflow.python.data.ops.dataset\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.data.Dataset.map()

WARNING:tensorflow:From /usr/local/lib/python3.8/dist-packages/tensorflow/python/util/dispatch.py:1176: sparse\_to\_dense (from tensorflow.python.ops.sparse\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Create a `tf.sparse.SparseTensor` and use `tf.sparse.to\_dense` instead.

W0818 00:30:05.504663 140436034864960 deprecation.py:364] From /usr/local/lib/python3.8/dist-packages/tensorflow/python/util/dispatch.py:1176: sparse\_to\_dense (from tensorflow.python.ops.sparse\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Create a `tf.sparse.SparseTensor` and use `tf.sparse.to\_dense` instead.

WARNING:tensorflow:From /usr/local/lib/python3.8/dist-packages/tensorflow/python/util/dispatch.py:1176: to\_float (from tensorflow.python.ops.math\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.cast` instead.

W0818 00:30:06.732841 140436034864960 deprecation.py:364] From /usr/local/lib/python3.8/dist-packages/tensorflow/python/util/dispatch.py:1176: to\_float (from tensorflow.python.ops.math\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.cast` instead.

INFO:tensorflow:Waiting for new checkpoint at /opt/training

I0818 00:30:08.939349 140436034864960 checkpoint\_utils.py:168] Waiting for new checkpoint at /opt/training

INFO:tensorflow:Found new checkpoint at /opt/training/ckpt-3

I0818 00:30:08.939940 140436034864960 checkpoint\_utils.py:177] Found new checkpoint at /opt/training/ckpt-3

/usr/local/lib/python3.8/dist-packages/keras/src/backend.py:452: UserWarning: `tf.keras.backend.set\_learning\_phase` is deprecated and will be removed after 2020-10-11. To update it, simply pass a True/False value to the `training` argument of the `\_\_call\_\_` method of your layer or model.

warnings.warn(

I0818 00:30:16.495590 140436034864960 api.py:460] feature\_map\_spatial\_dims: [(80, 80), (40, 40), (20, 20), (10, 10), (5, 5)]

I0818 00:30:29.766751 140436034864960 api.py:460] feature\_map\_spatial\_dims: [(80, 80), (40, 40), (20, 20), (10, 10), (5, 5)]

WARNING:tensorflow:From /usr/local/lib/python3.8/dist-packages/tensorflow/python/util/dispatch.py:1176: to\_int64 (from tensorflow.python.ops.math\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.cast` instead.

W0818 00:30:35.397368 140436034864960 deprecation.py:364] From /usr/local/lib/python3.8/dist-packages/tensorflow/python/util/dispatch.py:1176: to\_int64 (from tensorflow.python.ops.math\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.cast` instead.

INFO:tensorflow:Finished eval step 0

I0818 00:30:35.414900 140436034864960 model\_lib\_v2.py:966] Finished eval step 0

WARNING:tensorflow:From /usr/local/lib/python3.8/dist-packages/tensorflow/python/autograph/impl/api.py:460: py\_func (from tensorflow.python.ops.script\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

tf.py\_func is deprecated in TF V2. Instead, there are two

options available in V2.

- tf.py\_function takes a python function which manipulates tf eager

tensors instead of numpy arrays. It's easy to convert a tf eager tensor to

an ndarray (just call tensor.numpy()) but having access to eager tensors

means `tf.py\_function`s can use accelerators such as GPUs as well as

being differentiable using a gradient tape.

- tf.numpy\_function maintains the semantics of the deprecated tf.py\_func

(it is not differentiable, and manipulates numpy arrays). It drops the

stateful argument making all functions stateful.

W0818 00:30:35.531142 140436034864960 deprecation.py:364] From /usr/local/lib/python3.8/dist-packages/tensorflow/python/autograph/impl/api.py:460: py\_func (from tensorflow.python.ops.script\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

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- tf.numpy\_function maintains the semantics of the deprecated tf.py\_func

(it is not differentiable, and manipulates numpy arrays). It drops the

stateful argument making all functions stateful.

Traceback (most recent call last):

File "model\_main\_tf2.py", line 114, in <module>

tf.compat.v1.app.run()

File "/usr/local/lib/python3.8/dist-packages/tensorflow/python/platform/app.py", line 36, in run

\_run(main=main, argv=argv, flags\_parser=\_parse\_flags\_tolerate\_undef)

File "/usr/local/lib/python3.8/dist-packages/absl/app.py", line 308, in run

\_run\_main(main, args)

File "/usr/local/lib/python3.8/dist-packages/absl/app.py", line 254, in \_run\_main

sys.exit(main(argv))

File "model\_main\_tf2.py", line 81, in main

model\_lib\_v2.eval\_continuously(

File "/usr/local/lib/python3.8/dist-packages/object\_detection/model\_lib\_v2.py", line 1158, in eval\_continuously

eager\_eval\_loop(

File "/usr/local/lib/python3.8/dist-packages/object\_detection/model\_lib\_v2.py", line 970, in eager\_eval\_loop

sbys\_image\_list = vutils.draw\_side\_by\_side\_evaluation\_image(

File "/usr/local/lib/python3.8/dist-packages/object\_detection/utils/visualization\_utils.py", line 713, in draw\_side\_by\_side\_evaluation\_image

images\_with\_detections = draw\_bounding\_boxes\_on\_image\_tensors(

File "/usr/local/lib/python3.8/dist-packages/object\_detection/utils/visualization\_utils.py", line 622, in draw\_bounding\_boxes\_on\_image\_tensors

images = tf.map\_fn(draw\_boxes, elems, dtype=tf.uint8, back\_prop=False)

File "/usr/local/lib/python3.8/dist-packages/tensorflow/python/util/deprecation.py", line 576, in new\_func

return func(\*args, \*\*kwargs)

File "/usr/local/lib/python3.8/dist-packages/tensorflow/python/ops/map\_fn.py", line 498, in map\_fn

\_, r\_a = while\_loop.while\_loop(

File "/usr/local/lib/python3.8/dist-packages/tensorflow/python/ops/while\_loop.py", line 499, in while\_loop

loop\_vars = body(\*loop\_vars)

File "/usr/local/lib/python3.8/dist-packages/tensorflow/python/ops/while\_loop.py", line 490, in <lambda>

body = lambda i, lv: (i + 1, orig\_body(\*lv))

File "/usr/local/lib/python3.8/dist-packages/tensorflow/python/ops/map\_fn.py", line 488, in compute

result\_value = autographed\_fn(elems\_value)

File "/usr/local/lib/python3.8/dist-packages/tensorflow/python/autograph/impl/api.py", line 693, in wrapper

raise e.ag\_error\_metadata.to\_exception(e)

File "/usr/local/lib/python3.8/dist-packages/tensorflow/python/autograph/impl/api.py", line 690, in wrapper

return converted\_call(f, args, kwargs, options=options)

File "/usr/local/lib/python3.8/dist-packages/tensorflow/python/autograph/impl/api.py", line 439, in converted\_call

result = converted\_f(\*effective\_args, \*\*kwargs)

File "/tmp/\_\_autograph\_generated\_fileu9il8pzq.py", line 47, in tf\_\_draw\_boxes

image\_with\_boxes = ag\_\_.converted\_call(ag\_\_.ld(tf).py\_func, (ag\_\_.ld(visualize\_boxes\_fn), ag\_\_.ld(image\_and\_detections)[2:], ag\_\_.ld(tf).uint8), None, fscope)

File "/usr/local/lib/python3.8/dist-packages/tensorflow/python/autograph/impl/api.py", line 377, in converted\_call

return \_call\_unconverted(f, args, kwargs, options)

File "/usr/local/lib/python3.8/dist-packages/tensorflow/python/autograph/impl/api.py", line 460, in \_call\_unconverted

return f(\*args)

File "/usr/local/lib/python3.8/dist-packages/tensorflow/python/util/deprecation.py", line 371, in new\_func

return func(\*args, \*\*kwargs)

File "/usr/local/lib/python3.8/dist-packages/tensorflow/python/util/traceback\_utils.py", line 153, in error\_handler

raise e.with\_traceback(filtered\_tb) from None

File "/usr/local/lib/python3.8/dist-packages/object\_detection/utils/visualization\_utils.py", line 398, in visualization\_py\_func\_fn

return visualize\_boxes\_and\_labels\_on\_image\_array(

File "/usr/local/lib/python3.8/dist-packages/object\_detection/utils/visualization\_utils.py", line 1251, in visualize\_boxes\_and\_labels\_on\_image\_array

draw\_bounding\_box\_on\_image\_array(

File "/usr/local/lib/python3.8/dist-packages/object\_detection/utils/visualization\_utils.py", line 160, in draw\_bounding\_box\_on\_image\_array

draw\_bounding\_box\_on\_image(image\_pil, ymin, xmin, ymax, xmax, color,

File "/usr/local/lib/python3.8/dist-packages/object\_detection/utils/visualization\_utils.py", line 219, in draw\_bounding\_box\_on\_image

display\_str\_heights = [font.getbbox(ds)[3] for ds in display\_str\_list]

File "/usr/local/lib/python3.8/dist-packages/object\_detection/utils/visualization\_utils.py", line 219, in <listcomp>

display\_str\_heights = [font.getbbox(ds)[3] for ds in display\_str\_list]

AttributeError: in user code:

File "/usr/local/lib/python3.8/dist-packages/object\_detection/utils/visualization\_utils.py", line 618, in draw\_boxes \*

image\_with\_boxes = tf.py\_func(visualize\_boxes\_fn, image\_and\_detections[2:],

File "/usr/local/lib/python3.8/dist-packages/object\_detection/utils/visualization\_utils.py", line 398, in visualization\_py\_func\_fn

return visualize\_boxes\_and\_labels\_on\_image\_array(

File "/usr/local/lib/python3.8/dist-packages/object\_detection/utils/visualization\_utils.py", line 1251, in visualize\_boxes\_and\_labels\_on\_image\_array

draw\_bounding\_box\_on\_image\_array(

File "/usr/local/lib/python3.8/dist-packages/object\_detection/utils/visualization\_utils.py", line 160, in draw\_bounding\_box\_on\_image\_array

draw\_bounding\_box\_on\_image(image\_pil, ymin, xmin, ymax, xmax, color,

File "/usr/local/lib/python3.8/dist-packages/object\_detection/utils/visualization\_utils.py", line 219, in draw\_bounding\_box\_on\_image

display\_str\_heights = [font.getbbox(ds)[3] for ds in display\_str\_list]

File "/usr/local/lib/python3.8/dist-packages/object\_detection/utils/visualization\_utils.py", line 219, in <listcomp>

display\_str\_heights = [font.getbbox(ds)[3] for ds in display\_str\_list]

AttributeError: 'ImageFont' object has no attribute 'getbbox'

==EXPORTING THE MODEL==

I0818 00:30:39.790028 140226765850432 ssd\_efficientnet\_bifpn\_feature\_extractor.py:150] EfficientDet EfficientNet backbone version: efficientnet-b1

I0818 00:30:39.790168 140226765850432 ssd\_efficientnet\_bifpn\_feature\_extractor.py:152] EfficientDet BiFPN num filters: 88

I0818 00:30:39.790230 140226765850432 ssd\_efficientnet\_bifpn\_feature\_extractor.py:153] EfficientDet BiFPN num iterations: 4

I0818 00:30:39.794417 140226765850432 efficientnet\_model.py:143] round\_filter input=32 output=32

I0818 00:30:39.822936 140226765850432 efficientnet\_model.py:143] round\_filter input=32 output=32

I0818 00:30:39.823032 140226765850432 efficientnet\_model.py:143] round\_filter input=16 output=16

I0818 00:30:39.977067 140226765850432 efficientnet\_model.py:143] round\_filter input=16 output=16

I0818 00:30:39.977206 140226765850432 efficientnet\_model.py:143] round\_filter input=24 output=24

I0818 00:30:40.254534 140226765850432 efficientnet\_model.py:143] round\_filter input=24 output=24

I0818 00:30:40.254677 140226765850432 efficientnet\_model.py:143] round\_filter input=40 output=40

I0818 00:30:40.528520 140226765850432 efficientnet\_model.py:143] round\_filter input=40 output=40

I0818 00:30:40.528690 140226765850432 efficientnet\_model.py:143] round\_filter input=80 output=80

I0818 00:30:40.879019 140226765850432 efficientnet\_model.py:143] round\_filter input=80 output=80

I0818 00:30:40.879152 140226765850432 efficientnet\_model.py:143] round\_filter input=112 output=112

I0818 00:30:41.222218 140226765850432 efficientnet\_model.py:143] round\_filter input=112 output=112

I0818 00:30:41.222360 140226765850432 efficientnet\_model.py:143] round\_filter input=192 output=192

I0818 00:30:41.656105 140226765850432 efficientnet\_model.py:143] round\_filter input=192 output=192

I0818 00:30:41.656241 140226765850432 efficientnet\_model.py:143] round\_filter input=320 output=320

I0818 00:30:41.839905 140226765850432 efficientnet\_model.py:143] round\_filter input=1280 output=1280

I0818 00:30:41.886730 140226765850432 efficientnet\_model.py:453] Building model efficientnet with params ModelConfig(width\_coefficient=1.0, depth\_coefficient=1.1, resolution=240, dropout\_rate=0.2, blocks=(BlockConfig(input\_filters=32, output\_filters=16, kernel\_size=3, num\_repeat=1, expand\_ratio=1, strides=(1, 1), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=16, output\_filters=24, kernel\_size=3, num\_repeat=2, expand\_ratio=6, strides=(2, 2), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=24, output\_filters=40, kernel\_size=5, num\_repeat=2, expand\_ratio=6, strides=(2, 2), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=40, output\_filters=80, kernel\_size=3, num\_repeat=3, expand\_ratio=6, strides=(2, 2), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=80, output\_filters=112, kernel\_size=5, num\_repeat=3, expand\_ratio=6, strides=(1, 1), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=112, output\_filters=192, kernel\_size=5, num\_repeat=4, expand\_ratio=6, strides=(2, 2), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise'), BlockConfig(input\_filters=192, output\_filters=320, kernel\_size=3, num\_repeat=1, expand\_ratio=6, strides=(1, 1), se\_ratio=0.25, id\_skip=True, fused\_conv=False, conv\_type='depthwise')), stem\_base\_filters=32, top\_base\_filters=1280, activation='simple\_swish', batch\_norm='default', bn\_momentum=0.99, bn\_epsilon=0.001, weight\_decay=5e-06, drop\_connect\_rate=0.2, depth\_divisor=8, min\_depth=None, use\_se=True, input\_channels=3, num\_classes=1000, model\_name='efficientnet', rescale\_input=False, data\_format='channels\_last', dtype='float32')

WARNING:tensorflow:From /usr/local/lib/python3.8/dist-packages/tensorflow/python/autograph/impl/api.py:459: calling map\_fn\_v2 (from tensorflow.python.ops.map\_fn) with back\_prop=False is deprecated and will be removed in a future version.

Instructions for updating:

back\_prop=False is deprecated. Consider using tf.stop\_gradient instead.

Instead of:

results = tf.map\_fn(fn, elems, back\_prop=False)

Use:

results = tf.nest.map\_structure(tf.stop\_gradient, tf.map\_fn(fn, elems))

W0818 00:30:43.487100 140226765850432 deprecation.py:641] From /usr/local/lib/python3.8/dist-packages/tensorflow/python/autograph/impl/api.py:459: calling map\_fn\_v2 (from tensorflow.python.ops.map\_fn) with back\_prop=False is deprecated and will be removed in a future version.

Instructions for updating:

back\_prop=False is deprecated. Consider using tf.stop\_gradient instead.

Instead of:

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Use:

results = tf.nest.map\_structure(tf.stop\_gradient, tf.map\_fn(fn, elems))

I0818 00:30:48.186390 140226765850432 api.py:460] feature\_map\_spatial\_dims: [(80, 80), (40, 40), (20, 20), (10, 10), (5, 5)]

I0818 00:30:58.446371 140226765850432 api.py:460] feature\_map\_spatial\_dims: [(80, 80), (40, 40), (20, 20), (10, 10), (5, 5)]

I0818 00:31:01.987891 140226765850432 signature\_serialization.py:148] Function `call\_func` contains input name(s) resource with unsupported characters which will be renamed to weightsharedconvolutionalboxpredictor\_classpredictiontower\_conv2d\_2\_batchnorm\_feature\_4\_fusedbatchnormv3\_readvariableop\_1\_resource in the SavedModel.

I0818 00:31:05.124742 140226765850432 api.py:460] feature\_map\_spatial\_dims: [(80, 80), (40, 40), (20, 20), (10, 10), (5, 5)]

WARNING:tensorflow:Skipping full serialization of Keras layer <object\_detection.meta\_architectures.ssd\_meta\_arch.SSDMetaArch object at 0x7f89163a8370>, because it is not built.

W0818 00:31:07.675219 140226765850432 save\_impl.py:66] Skipping full serialization of Keras layer <object\_detection.meta\_architectures.ssd\_meta\_arch.SSDMetaArch object at 0x7f89163a8370>, because it is not built.

I0818 00:31:42.043875 140226765850432 save.py:274] Found untraced functions such as WeightSharedConvolutionalBoxPredictor\_layer\_call\_fn, WeightSharedConvolutionalBoxPredictor\_layer\_call\_and\_return\_conditional\_losses, WeightSharedConvolutionalBoxHead\_layer\_call\_fn, WeightSharedConvolutionalBoxHead\_layer\_call\_and\_return\_conditional\_losses, WeightSharedConvolutionalClassHead\_layer\_call\_fn while saving (showing 5 of 535). These functions will not be directly callable after loading.

INFO:tensorflow:Assets written to: /tmp/exported/saved\_model/assets

I0818 00:32:06.792477 140226765850432 builder\_impl.py:804] Assets written to: /tmp/exported/saved\_model/assets

I0818 00:32:07.711728 140226765850432 fingerprinting\_utils.py:48] Writing fingerprint to /tmp/exported/saved\_model/fingerprint.pb

INFO:tensorflow:Writing pipeline config file to /tmp/exported/pipeline.config

I0818 00:32:09.123632 140226765850432 config\_util.py:253] Writing pipeline config file to /tmp/exported/pipeline.config

2023-08-18 00:32:11,431 sagemaker-training-toolkit INFO Reporting training SUCCESS

2023-08-18 00:32:26 Uploading - Uploading generated training model

2023-08-18 00:32:26 Completed - Training job completed

Training seconds: 14427

Billable seconds: 14427