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D:\Users\JustinYu\PycharmProjects\resnet50-crack-detection\venv\Scripts\python.exe D:/Users/JustinYu/PycharmProjects/resnet50-crack-detection/run.py
2021-10-26 23:18:38.952990: I tensorflow/core/platform/cpu_feature_guard.cc:142] 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.
2021-10-26 23:18:39.649326: I tensorflow/core/common_runtime/gpu/gpu_device.cc:1510] Created device /job:localhost/replica:0/task:0/device:GPU:0 with 1883 MB memory:  -> device: 0, name: NVIDIA GeForce GTX 1060, pci bus id: 0000:01:00.0, compute capability: 6.1
1. Train
2. Predict
> 1
Found 26500 images belonging to 2 classes.
Found 5800 images belonging to 2 classes.
[Model] Model Compiled
[Model] Model Summary:
Model: "sequential"
_________________________________________________________________
Layer (type)                 Output Shape              Param #
=================================================================
resnet50 (Functional)        (None, 2048)              23587712
_________________________________________________________________
dense (Dense)                (None, 128)               262272
_________________________________________________________________
dense_1 (Dense)              (None, 128)               16512
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21 _________________________________________________________________
22 dropout (Dropout)            (None, 128
   )                0
23 _________________________________________________________________
24 dense_2 (Dense)              (None, 2
   )                 258
25 =================================================================
26 Total params: 23,866,754
27 Trainable params: 279,042
28 Non-trainable params: 23,587,712
29 _________________________________________________________________
30 Time taken: 0:00:02.262262
31 [Model] Training Started
32 [Model] 100 epochs, 96 batch size
33 2021-10-26 23:18:51.881528: I tensorflow/compiler/
   mlir/mlir_graph_optimization_pass.cc:185] None of the
    MLIR Optimization Passes are enabled (registered 2)
34 Epoch 1/100
35 2021-10-26 23:19:03.270045: I tensorflow/
   stream_executor/cuda/cuda_dnn.cc:369] Loaded cuDNN
   version 8100
36 2021-10-26 23:19:09.738542: W tensorflow/core/
   common_runtime/bfc_allocator.cc:272] Allocator (
   GPU_0_bfc) ran out of memory trying to allocate 898.
   00MiB with freed_by_count=0. The caller indicates
   that this is not a failure, but may mean that there
   could be performance gains if more memory were
   available.
37 2021-10-26 23:19:13.700927: W tensorflow/core/
   common_runtime/bfc_allocator.cc:272] Allocator (
   GPU_0_bfc) ran out of memory trying to allocate 880.
   00MiB with freed_by_count=0. The caller indicates
   that this is not a failure, but may mean that there
   could be performance gains if more memory were
   available.
38 2021-10-26 23:19:13.701393: W tensorflow/core/
   common_runtime/bfc_allocator.cc:272] Allocator (
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38 GPU_0_bfc) ran out of memory trying to allocate 1.
   29GiB with freed_by_count=0. The caller indicates
   that this is not a failure, but may mean that there
   could be performance gains if more memory were
   available.
39 2021-10-26 23:19:13.895581: W tensorflow/core/
   common_runtime/bfc_allocator.cc:272] Allocator (
   GPU_0_bfc) ran out of memory trying to allocate 1.
   30GiB with freed_by_count=0. The caller indicates
   that this is not a failure, but may mean that there
   could be performance gains if more memory were
   available.
40 2021-10-26 23:19:15.092189: W tensorflow/core/
   common_runtime/bfc_allocator.cc:272] Allocator (
   GPU_0_bfc) ran out of memory trying to allocate 2.
   38GiB with freed_by_count=0. The caller indicates
   that this is not a failure, but may mean that there
   could be performance gains if more memory were
   available.
41 2021-10-26 23:19:15.168213: W tensorflow/core/
   common_runtime/bfc_allocator.cc:272] Allocator (
   GPU_0_bfc) ran out of memory trying to allocate 2.
   69GiB with freed_by_count=0. The caller indicates
   that this is not a failure, but may mean that there
   could be performance gains if more memory were
   available.
42 107/276 [==========>...................] - ETA: 12:20
    - loss: 0.8606 - accuracy: 0.54552021-10-26 23:27:02
   .955999: W tensorflow/core/common_runtime/
   bfc_allocator.cc:272] Allocator (GPU_0_bfc) ran out
   of memory trying to allocate 2.27GiB with
   freed_by_count=0. The caller indicates that this is
   not a failure, but may mean that there could be
   performance gains if more memory were available.
43 2021-10-26 23:27:03.023490: W tensorflow/core/
   common_runtime/bfc_allocator.cc:272] Allocator (
   GPU_0_bfc) ran out of memory trying to allocate 2.
   29GiB with freed_by_count=0. The caller indicates
   that this is not a failure, but may mean that there
   could be performance gains if more memory were
   available.
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276/276 [==============================] - 1176s 4s/step - loss: 0.6604 - accuracy: 0.6605 - val_loss: 0.3200 - val_accuracy: 0.9233
D:\Users\JustinYu\PycharmProjects\resnet50-crack-detection\venv\lib\site-packages\keras\utils\generic_utils.py:494: CustomMaskWarning: Custom mask layers require a config and must override get_config. When loading, the custom mask layer must be passed to the custom_objects argument.
  warnings.warn('Custom mask layers require a config and must override '
Epoch 2/100
276/276 [==============================] - 341s 1s/step - loss: 0.3286 - accuracy: 0.8644 - val_loss: 0.2010 - val_accuracy: 0.9425
Epoch 3/100
276/276 [==============================] - 321s 1s/step - loss: 0.2282 - accuracy: 0.9180 - val_loss: 0.1531 - val_accuracy: 0.9530
Epoch 4/100
276/276 [==============================] - 338s 1s/step - loss: 0.1827 - accuracy: 0.9337 - val_loss: 0.1293 - val_accuracy: 0.9549
Epoch 5/100
276/276 [==============================] - 349s 1s/step - loss: 0.1559 - accuracy: 0.9447 - val_loss: 0.1141 - val_accuracy: 0.9578
Epoch 6/100
276/276 [==============================] - 372s 1s/step - loss: 0.1354 - accuracy: 0.9525 - val_loss: 0.1027 - val_accuracy: 0.9611
Epoch 7/100
276/276 [==============================] - 384s 1s/step - loss: 0.1243 - accuracy: 0.9567 - val_loss: 0.0965 - val_accuracy: 0.9632
Epoch 8/100
276/276 [==============================] - 395s 1s/step - loss: 0.1111 - accuracy: 0.9623 - val_loss: 0.0885 - val_accuracy: 0.9663
Epoch 9/100
276/276 [==============================] - 392s 1s/
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62 step - loss: 0.1036 - accuracy: 0.9640 - val_loss: 0
   .0841 - val_accuracy: 0.9677
63 Epoch 10/100
64 276/276 [==============================] - 394s 1s/
   step - loss: 0.0984 - accuracy: 0.9635 - val_loss: 0
   .0803 - val_accuracy: 0.9689
65 Epoch 11/100
66 276/276 [==============================] - 427s 2s/
   step - loss: 0.0931 - accuracy: 0.9677 - val_loss: 0
   .0762 - val_accuracy: 0.9717
67 Epoch 12/100
68 276/276 [==============================] - 543s 2s/
   step - loss: 0.0866 - accuracy: 0.9706 - val_loss: 0
   .0731 - val_accuracy: 0.9726
69 Epoch 13/100
70 276/276 [==============================] - 575s 2s/
   step - loss: 0.0821 - accuracy: 0.9710 - val_loss: 0
   .0715 - val_accuracy: 0.9727
71 Epoch 14/100
72 276/276 [==============================] - 584s 2s/
   step - loss: 0.0804 - accuracy: 0.9711 - val_loss: 0
   .0682 - val_accuracy: 0.9753
73 Epoch 15/100
74 276/276 [==============================] - 532s 2s/
   step - loss: 0.0758 - accuracy: 0.9727 - val_loss: 0
   .0674 - val_accuracy: 0.9750
75 Epoch 16/100
76 276/276 [==============================] - 501s 2s/
   step - loss: 0.0741 - accuracy: 0.9743 - val_loss: 0
   .0646 - val_accuracy: 0.9767
77 Epoch 17/100
78 276/276 [==============================] - 508s 2s/
   step - loss: 0.0729 - accuracy: 0.9739 - val_loss: 0
   .0622 - val_accuracy: 0.9774
79 Epoch 18/100
80 276/276 [==============================] - 575s 2s/
   step - loss: 0.0680 - accuracy: 0.9756 - val_loss: 0
   .0624 - val_accuracy: 0.9771
81 Epoch 19/100
82 276/276 [==============================] - 549s 2s/
   step - loss: 0.0675 - accuracy: 0.9760 - val_loss: 0
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 82 .0600 - val_accuracy: 0.9781
 83 Epoch 20/100
 84 276/276 [==============================] - 392s 1s/
    step - loss: 0.0646 - accuracy: 0.9769 - val_loss: 0
    .0593 - val_accuracy: 0.9780
 85 Epoch 21/100
 86 276/276 [==============================] - 371s 1s/
    step - loss: 0.0630 - accuracy: 0.9760 - val_loss: 0
    .0573 - val_accuracy: 0.9799
 87 Epoch 22/100
 88 276/276 [==============================] - 374s 1s/
    step - loss: 0.0628 - accuracy: 0.9780 - val_loss: 0
    .0569 - val_accuracy: 0.9797
 89 Epoch 23/100
 90 276/276 [==============================] - 432s 2s/
    step - loss: 0.0609 - accuracy: 0.9780 - val_loss: 0
    .0559 - val_accuracy: 0.9797
 91 Epoch 24/100
 92 276/276 [==============================] - 422s 2s/
    step - loss: 0.0586 - accuracy: 0.9790 - val_loss: 0
    .0549 - val_accuracy: 0.9800
 93 Epoch 25/100
 94 276/276 [==============================] - 433s 2s/
    step - loss: 0.0576 - accuracy: 0.9785 - val_loss: 0
    .0546 - val_accuracy: 0.9806
 95 Epoch 26/100
 96 276/276 [==============================] - 412s 1s/
    step - loss: 0.0561 - accuracy: 0.9793 - val_loss: 0
    .0538 - val_accuracy: 0.9809
 97 Epoch 27/100
 98 276/276 [==============================] - 397s 1s/
    step - loss: 0.0545 - accuracy: 0.9794 - val_loss: 0
    .0541 - val_accuracy: 0.9807
 99 Epoch 28/100
100 276/276 [==============================] - 383s 1s/
    step - loss: 0.0549 - accuracy: 0.9802 - val_loss: 0
    .0522 - val_accuracy: 0.9818
101 Epoch 29/100
102 276/276 [==============================] - 392s 1s/
    step - loss: 0.0527 - accuracy: 0.9805 - val_loss: 0
    .0515 - val_accuracy: 0.9821
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Epoch 30/100
276/276 [==============================] - 463s 2s/step - loss: 0.0524 - accuracy: 0.9814 - val_loss: 0.0520 - val_accuracy: 0.9818
Epoch 31/100
276/276 [==============================] - 499s 2s/step - loss: 0.0524 - accuracy: 0.9805 - val_loss: 0.0509 - val_accuracy: 0.9826
Epoch 32/100
276/276 [==============================] - 493s 2s/step - loss: 0.0501 - accuracy: 0.9821 - val_loss: 0.0499 - val_accuracy: 0.9826
Epoch 33/100
276/276 [==============================] - 557s 2s/step - loss: 0.0521 - accuracy: 0.9815 - val_loss: 0.0500 - val_accuracy: 0.9832
Epoch 34/100
276/276 [==============================] - 562s 2s/step - loss: 0.0500 - accuracy: 0.9819 - val_loss: 0.0506 - val_accuracy: 0.9821
[Model] Training Completed. Model saved as models/26102021-231847-e100.h5
Time taken: 4:27:35.697628

Process finished with exit code 0

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