Found 4555 validated image filenames belonging to 2 classes.

Found 1138 validated image filenames belonging to 2 classes.

Found 2440 validated image filenames belonging to 2 classes.

Model: "model\_2"

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Layer (type) Output Shape Param #

=================================================================

input\_7 (InputLayer) [(None, 224, 224, 3)] 0

block1\_conv1 (Conv2D) (None, 224, 224, 64) 1792

block1\_conv2 (Conv2D) (None, 224, 224, 64) 36928

block1\_pool (MaxPooling2D) (None, 112, 112, 64) 0

block2\_conv1 (Conv2D) (None, 112, 112, 128) 73856

block2\_conv2 (Conv2D) (None, 112, 112, 128) 147584

block2\_pool (MaxPooling2D) (None, 56, 56, 128) 0

block3\_conv1 (Conv2D) (None, 56, 56, 256) 295168

block3\_conv2 (Conv2D) (None, 56, 56, 256) 590080

block3\_conv3 (Conv2D) (None, 56, 56, 256) 590080

block3\_pool (MaxPooling2D) (None, 28, 28, 256) 0

block4\_conv1 (Conv2D) (None, 28, 28, 512) 1180160

block4\_conv2 (Conv2D) (None, 28, 28, 512) 2359808

block4\_conv3 (Conv2D) (None, 28, 28, 512) 2359808

block4\_pool (MaxPooling2D) (None, 14, 14, 512) 0

block5\_conv1 (Conv2D) (None, 14, 14, 512) 2359808

block5\_conv2 (Conv2D) (None, 14, 14, 512) 2359808

block5\_conv3 (Conv2D) (None, 14, 14, 512) 2359808

block5\_pool (MaxPooling2D) (None, 7, 7, 512) 0

flatten\_2 (Flatten) (None, 25088) 0

dense\_2 (Dense) (None, 1) 25089

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Total params: 14,739,777

Trainable params: 25,089

Non-trainable params: 14,714,688

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Epoch 1/100

143/143 [==============================] - 161s 482ms/step - loss: 0.3081 - accuracy: 0.8577 - val\_loss: 0.1977 - val\_accuracy: 0.9200 - lr: 0.0010

Epoch 2/100

143/143 [==============================] - 62s 433ms/step - loss: 0.1541 - accuracy: 0.9436 - val\_loss: 0.1363 - val\_accuracy: 0.9508 - lr: 0.0010

Epoch 3/100

143/143 [==============================] - 62s 436ms/step - loss: 0.1096 - accuracy: 0.9607 - val\_loss: 0.1443 - val\_accuracy: 0.9420 - lr: 0.0010

Epoch 4/100

143/143 [==============================] - 62s 435ms/step - loss: 0.0862 - accuracy: 0.9741 - val\_loss: 0.1109 - val\_accuracy: 0.9561 - lr: 0.0010

Epoch 5/100

143/143 [==============================] - 62s 435ms/step - loss: 0.0662 - accuracy: 0.9824 - val\_loss: 0.1052 - val\_accuracy: 0.9631 - lr: 0.0010

Epoch 6/100

143/143 [==============================] - 62s 435ms/step - loss: 0.0478 - accuracy: 0.9912 - val\_loss: 0.1027 - val\_accuracy: 0.9631 - lr: 0.0010

Epoch 7/100

143/143 [==============================] - 62s 433ms/step - loss: 0.0432 - accuracy: 0.9917 - val\_loss: 0.0946 - val\_accuracy: 0.9657 - lr: 0.0010

Epoch 8/100

143/143 [==============================] - 62s 435ms/step - loss: 0.0330 - accuracy: 0.9965 - val\_loss: 0.0951 - val\_accuracy: 0.9631 - lr: 0.0010

Epoch 9/100

143/143 [==============================] - 62s 434ms/step - loss: 0.0276 - accuracy: 0.9978 - val\_loss: 0.0912 - val\_accuracy: 0.9684 - lr: 0.0010

Epoch 10/100

143/143 [==============================] - 62s 434ms/step - loss: 0.0229 - accuracy: 0.9993 - val\_loss: 0.0972 - val\_accuracy: 0.9657 - lr: 0.0010

Epoch 11/100

143/143 [==============================] - 62s 433ms/step - loss: 0.0199 - accuracy: 0.9993 - val\_loss: 0.0911 - val\_accuracy: 0.9684 - lr: 0.0010

Epoch 12/100

143/143 [==============================] - 62s 432ms/step - loss: 0.0175 - accuracy: 0.9998 - val\_loss: 0.0872 - val\_accuracy: 0.9701 - lr: 0.0010

Epoch 13/100

143/143 [==============================] - 62s 431ms/step - loss: 0.0148 - accuracy: 0.9996 - val\_loss: 0.0898 - val\_accuracy: 0.9684 - lr: 0.0010

Epoch 14/100

143/143 [==============================] - 62s 430ms/step - loss: 0.0132 - accuracy: 0.9996 - val\_loss: 0.0885 - val\_accuracy: 0.9728 - lr: 0.0010

Epoch 15/100

143/143 [==============================] - 62s 430ms/step - loss: 0.0110 - accuracy: 0.9993 - val\_loss: 0.0896 - val\_accuracy: 0.9692 - lr: 0.0010

Epoch 16/100

143/143 [==============================] - 62s 430ms/step - loss: 0.0093 - accuracy: 0.9998 - val\_loss: 0.0875 - val\_accuracy: 0.9719 - lr: 1.0000e-04

Epoch 17/100

143/143 [==============================] - 62s 430ms/step - loss: 0.0091 - accuracy: 0.9998 - val\_loss: 0.0879 - val\_accuracy: 0.9719 - lr: 1.0000e-04

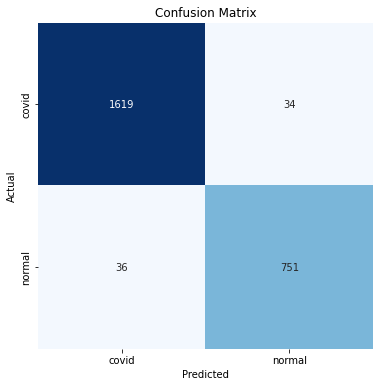
INFO:tensorflow:Assets written to: /content/drive/MyDrive/CTMendelyVGG16Split0.7noAug/assets

Test Loss: 0.09265

Test Accuracy: 97.13%

/usr/local/lib/python3.7/dist-packages/ipykernel\_launcher.py:123: DeprecationWarning: `np.int` is a deprecated alias for the builtin `int`. To silence this warning, use `int` by itself. Doing this will not modify any behavior and is safe. When replacing `np.int`, you may wish to use e.g. `np.int64` or `np.int32` to specify the precision. If you wish to review your current use, check the release note link for additional information.

Deprecated in NumPy 1.20; for more details and guidance: <https://numpy.org/devdocs/release/1.20.0-notes.html#deprecations>



Classification Report:

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precision recall f1-score support

covid 0.98 0.98 0.98 1653

normal 0.96 0.95 0.96 787

accuracy 0.97 2440

macro avg 0.97 0.97 0.97 2440

weighted avg 0.97 0.97 0.97 2440

