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\_6 (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\_conv4 (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\_conv4 (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\_conv4 (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

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

Total params: 20,049,473

Trainable params: 25,089

Non-trainable params: 20,024,384

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Epoch 1/100

143/143 [==============================] - 65s 447ms/step - loss: 0.3388 - accuracy: 0.8426 - val\_loss: 0.1789 - val\_accuracy: 0.9288 - lr: 0.0010

Epoch 2/100

143/143 [==============================] - 60s 420ms/step - loss: 0.1668 - accuracy: 0.9359 - val\_loss: 0.1554 - val\_accuracy: 0.9359 - lr: 0.0010

Epoch 3/100

143/143 [==============================] - 68s 476ms/step - loss: 0.1407 - accuracy: 0.9473 - val\_loss: 0.1307 - val\_accuracy: 0.9411 - lr: 0.0010

Epoch 4/100

143/143 [==============================] - 60s 417ms/step - loss: 0.1005 - accuracy: 0.9666 - val\_loss: 0.1142 - val\_accuracy: 0.9508 - lr: 0.0010

Epoch 5/100

143/143 [==============================] - 59s 413ms/step - loss: 0.0811 - accuracy: 0.9754 - val\_loss: 0.1094 - val\_accuracy: 0.9561 - lr: 0.0010

Epoch 6/100

143/143 [==============================] - 59s 410ms/step - loss: 0.0659 - accuracy: 0.9835 - val\_loss: 0.1206 - val\_accuracy: 0.9473 - lr: 0.0010

Epoch 7/100

143/143 [==============================] - 59s 410ms/step - loss: 0.0519 - accuracy: 0.9890 - val\_loss: 0.1253 - val\_accuracy: 0.9490 - lr: 0.0010

Epoch 8/100

143/143 [==============================] - 59s 412ms/step - loss: 0.0443 - accuracy: 0.9928 - val\_loss: 0.0949 - val\_accuracy: 0.9649 - lr: 0.0010

Epoch 9/100

143/143 [==============================] - 59s 414ms/step - loss: 0.0406 - accuracy: 0.9925 - val\_loss: 0.0956 - val\_accuracy: 0.9622 - lr: 0.0010

Epoch 10/100

143/143 [==============================] - 59s 412ms/step - loss: 0.0315 - accuracy: 0.9969 - val\_loss: 0.1214 - val\_accuracy: 0.9482 - lr: 0.0010

Epoch 11/100

143/143 [==============================] - 59s 413ms/step - loss: 0.0271 - accuracy: 0.9987 - val\_loss: 0.0865 - val\_accuracy: 0.9649 - lr: 0.0010

Epoch 12/100

143/143 [==============================] - 60s 416ms/step - loss: 0.0234 - accuracy: 0.9985 - val\_loss: 0.0901 - val\_accuracy: 0.9631 - lr: 0.0010

Epoch 13/100

143/143 [==============================] - 59s 412ms/step - loss: 0.0214 - accuracy: 0.9987 - val\_loss: 0.0911 - val\_accuracy: 0.9622 - lr: 0.0010

Epoch 14/100

143/143 [==============================] - 59s 411ms/step - loss: 0.0197 - accuracy: 0.9993 - val\_loss: 0.0842 - val\_accuracy: 0.9657 - lr: 0.0010

Epoch 15/100

143/143 [==============================] - 59s 414ms/step - loss: 0.0189 - accuracy: 0.9991 - val\_loss: 0.1018 - val\_accuracy: 0.9613 - lr: 0.0010

Epoch 16/100

143/143 [==============================] - 59s 413ms/step - loss: 0.0172 - accuracy: 0.9989 - val\_loss: 0.0851 - val\_accuracy: 0.9692 - lr: 0.0010

Epoch 17/100

143/143 [==============================] - 59s 410ms/step - loss: 0.0149 - accuracy: 0.9991 - val\_loss: 0.0819 - val\_accuracy: 0.9692 - lr: 0.0010

Epoch 18/100

143/143 [==============================] - 59s 411ms/step - loss: 0.0115 - accuracy: 0.9998 - val\_loss: 0.0863 - val\_accuracy: 0.9640 - lr: 0.0010

Epoch 19/100

143/143 [==============================] - 59s 411ms/step - loss: 0.0104 - accuracy: 0.9996 - val\_loss: 0.0809 - val\_accuracy: 0.9692 - lr: 0.0010

Epoch 20/100

143/143 [==============================] - 59s 410ms/step - loss: 0.0104 - accuracy: 0.9991 - val\_loss: 0.0809 - val\_accuracy: 0.9710 - lr: 0.0010

Epoch 21/100

143/143 [==============================] - 59s 410ms/step - loss: 0.0090 - accuracy: 0.9996 - val\_loss: 0.0815 - val\_accuracy: 0.9719 - lr: 0.0010

Epoch 22/100

143/143 [==============================] - 59s 411ms/step - loss: 0.0084 - accuracy: 0.9998 - val\_loss: 0.1011 - val\_accuracy: 0.9587 - lr: 0.0010

Epoch 23/100

143/143 [==============================] - 59s 411ms/step - loss: 0.0070 - accuracy: 0.9998 - val\_loss: 0.0795 - val\_accuracy: 0.9736 - lr: 1.0000e-04

Epoch 24/100

143/143 [==============================] - 59s 411ms/step - loss: 0.0065 - accuracy: 0.9998 - val\_loss: 0.0798 - val\_accuracy: 0.9736 - lr: 1.0000e-04

Epoch 25/100

143/143 [==============================] - 59s 412ms/step - loss: 0.0065 - accuracy: 0.9998 - val\_loss: 0.0800 - val\_accuracy: 0.9719 - lr: 1.0000e-04

Epoch 26/100

143/143 [==============================] - 59s 409ms/step - loss: 0.0065 - accuracy: 0.9998 - val\_loss: 0.0800 - val\_accuracy: 0.9719 - lr: 1.0000e-04

Epoch 27/100

143/143 [==============================] - 59s 411ms/step - loss: 0.0062 - accuracy: 0.9998 - val\_loss: 0.0801 - val\_accuracy: 0.9728 - lr: 1.0000e-05

Epoch 28/100

143/143 [==============================] - 59s 411ms/step - loss: 0.0062 - accuracy: 0.9998 - val\_loss: 0.0801 - val\_accuracy: 0.9728 - lr: 1.0000e-05

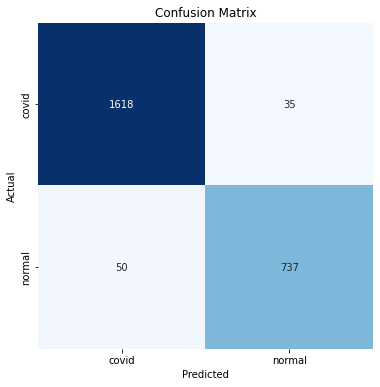
INFO:tensorflow:Assets written to: /content/drive/MyDrive/MendelyCTVGG19Split0.7noAug9000/assets

Test Loss: 0.11257

Test Accuracy: 96.52%

/usr/local/lib/python3.7/dist-packages/ipykernel\_launcher.py:127: 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

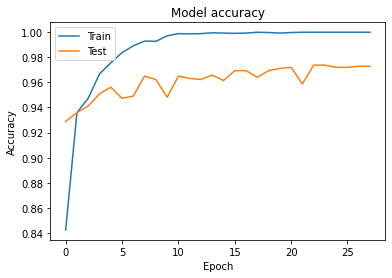
covid 0.97 0.98 0.97 1653

normal 0.95 0.94 0.95 787

accuracy 0.97 2440

macro avg 0.96 0.96 0.96 2440

weighted avg 0.97 0.97 0.97 2440



<matplotlib.legend.Legend at 0x7f977f546a50>

