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Epoch 1/100

183/183 [==============================] - 85s 459ms/step - loss: 0.2618 - accuracy: 0.8839 - val\_loss: 0.1596 - val\_accuracy: 0.9330 - lr: 0.0010

Epoch 2/100

183/183 [==============================] - 81s 441ms/step - loss: 0.1392 - accuracy: 0.9493 - val\_loss: 0.1251 - val\_accuracy: 0.9515 - lr: 0.0010

Epoch 3/100

183/183 [==============================] - 79s 433ms/step - loss: 0.0907 - accuracy: 0.9705 - val\_loss: 0.1072 - val\_accuracy: 0.9658 - lr: 0.0010

Epoch 4/100

183/183 [==============================] - 79s 431ms/step - loss: 0.0699 - accuracy: 0.9819 - val\_loss: 0.1394 - val\_accuracy: 0.9467 - lr: 0.0010

Epoch 5/100

183/183 [==============================] - 79s 431ms/step - loss: 0.0552 - accuracy: 0.9846 - val\_loss: 0.0924 - val\_accuracy: 0.9692 - lr: 0.0010

Epoch 6/100

183/183 [==============================] - 79s 432ms/step - loss: 0.0400 - accuracy: 0.9920 - val\_loss: 0.0963 - val\_accuracy: 0.9679 - lr: 0.0010

Epoch 7/100

183/183 [==============================] - 79s 431ms/step - loss: 0.0338 - accuracy: 0.9940 - val\_loss: 0.1056 - val\_accuracy: 0.9638 - lr: 0.0010

Epoch 8/100

183/183 [==============================] - 79s 433ms/step - loss: 0.0282 - accuracy: 0.9969 - val\_loss: 0.0897 - val\_accuracy: 0.9679 - lr: 0.0010

Epoch 9/100

183/183 [==============================] - 79s 432ms/step - loss: 0.0236 - accuracy: 0.9976 - val\_loss: 0.0837 - val\_accuracy: 0.9706 - lr: 0.0010

Epoch 10/100

183/183 [==============================] - 79s 432ms/step - loss: 0.0178 - accuracy: 0.9985 - val\_loss: 0.0855 - val\_accuracy: 0.9706 - lr: 0.0010

Epoch 11/100

183/183 [==============================] - 79s 432ms/step - loss: 0.0164 - accuracy: 0.9988 - val\_loss: 0.0811 - val\_accuracy: 0.9733 - lr: 0.0010

Epoch 12/100

183/183 [==============================] - 80s 434ms/step - loss: 0.0137 - accuracy: 0.9995 - val\_loss: 0.0810 - val\_accuracy: 0.9727 - lr: 0.0010

Epoch 13/100

183/183 [==============================] - 79s 433ms/step - loss: 0.0117 - accuracy: 0.9997 - val\_loss: 0.0856 - val\_accuracy: 0.9692 - lr: 0.0010

Epoch 14/100

183/183 [==============================] - 79s 433ms/step - loss: 0.0108 - accuracy: 0.9993 - val\_loss: 0.0826 - val\_accuracy: 0.9733 - lr: 0.0010

Epoch 15/100

183/183 [==============================] - 79s 433ms/step - loss: 0.0082 - accuracy: 0.9997 - val\_loss: 0.0893 - val\_accuracy: 0.9672 - lr: 0.0010

Epoch 16/100

183/183 [==============================] - 79s 432ms/step - loss: 0.0067 - accuracy: 0.9997 - val\_loss: 0.0833 - val\_accuracy: 0.9727 - lr: 1.0000e-04

Epoch 17/100

183/183 [==============================] - 79s 433ms/step - loss: 0.0065 - accuracy: 0.9998 - val\_loss: 0.0810 - val\_accuracy: 0.9740 - lr: 1.0000e-04

Epoch 18/100

183/183 [==============================] - 79s 433ms/step - loss: 0.0064 - accuracy: 0.9998 - val\_loss: 0.0805 - val\_accuracy: 0.9747 - lr: 1.0000e-04

Epoch 19/100

183/183 [==============================] - 79s 433ms/step - loss: 0.0064 - accuracy: 0.9997 - val\_loss: 0.0816 - val\_accuracy: 0.9733 - lr: 1.0000e-04

Epoch 20/100

183/183 [==============================] - 79s 433ms/step - loss: 0.0063 - accuracy: 0.9998 - val\_loss: 0.0815 - val\_accuracy: 0.9740 - lr: 1.0000e-04

Epoch 21/100

183/183 [==============================] - 79s 433ms/step - loss: 0.0062 - accuracy: 0.9997 - val\_loss: 0.0807 - val\_accuracy: 0.9747 - lr: 1.0000e-04

Epoch 22/100

183/183 [==============================] - 79s 433ms/step - loss: 0.0060 - accuracy: 0.9998 - val\_loss: 0.0816 - val\_accuracy: 0.9740 - lr: 1.0000e-05

Epoch 23/100

183/183 [==============================] - 79s 433ms/step - loss: 0.0060 - accuracy: 0.9997 - val\_loss: 0.0816 - val\_accuracy: 0.9740 - lr: 1.0000e-05

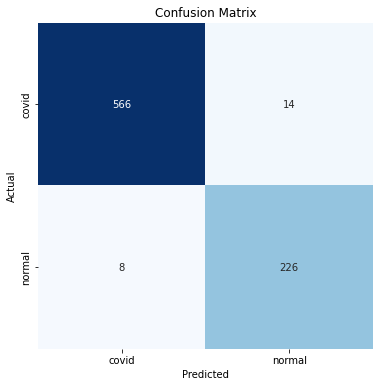
INFO:tensorflow:Assets written to: /content/drive/MyDrive/CTMendelyVGG16Split0.9noAug/assets

Test Loss: 0.08686

Test Accuracy: 97.30%

/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 0.99 0.98 0.98 580

normal 0.94 0.97 0.95 234

accuracy 0.97 814

macro avg 0.96 0.97 0.97 814

weighted avg 0.97 0.97 0.97 814

