['with\_mask', 'improper\_mask', 'without\_mask']

Epoch 1/20

249/249 [==============================] - ETA: 0s - loss: 0.7839 - accuracy: 0.7016

Epoch 1: val\_loss improved from inf to 0.98895, saving model to bestmodelRFMD.hdf5

249/249 [==============================] - 220s 835ms/step - loss: 0.7839 - accuracy: 0.7016 - val\_loss: 0.9889 - val\_accuracy: 0.6149

Epoch 2/20

249/249 [==============================] - ETA: 0s - loss: 0.5566 - accuracy: 0.8138

Epoch 2: val\_loss did not improve from 0.98895

249/249 [==============================] - 247s 993ms/step - loss: 0.5566 - accuracy: 0.8138 - val\_loss: 6.5217 - val\_accuracy: 0.3421

Epoch 3/20

249/249 [==============================] - ETA: 0s - loss: 0.4730 - accuracy: 0.8377

Epoch 3: val\_loss improved from 0.98895 to 0.88193, saving model to bestmodelRFMD.hdf5

249/249 [==============================] - 254s 1s/step - loss: 0.4730 - accuracy: 0.8377 - val\_loss: 0.8819 - val\_accuracy: 0.6503

Epoch 4/20

249/249 [==============================] - ETA: 0s - loss: 0.4064 - accuracy: 0.8593

Epoch 4: val\_loss did not improve from 0.88193

249/249 [==============================] - 201s 808ms/step - loss: 0.4064 - accuracy: 0.8593 - val\_loss: 0.9313 - val\_accuracy: 0.6631

Epoch 5/20

249/249 [==============================] - ETA: 0s - loss: 0.3765 - accuracy: 0.8731

Epoch 5: val\_loss improved from 0.88193 to 0.41134, saving model to bestmodelRFMD.hdf5

249/249 [==============================] - 213s 856ms/step - loss: 0.3765 - accuracy: 0.8731 - val\_loss: 0.4113 - val\_accuracy: 0.8670

Epoch 6/20

249/249 [==============================] - ETA: 0s - loss: 0.3460 - accuracy: 0.8847

Epoch 6: val\_loss did not improve from 0.41134

249/249 [==============================] - 321s 1s/step - loss: 0.3460 - accuracy: 0.8847 - val\_loss: 0.4500 - val\_accuracy: 0.8809

Epoch 7/20

249/249 [==============================] - ETA: 0s - loss: 0.3177 - accuracy: 0.8919

Epoch 7: val\_loss improved from 0.41134 to 0.37341, saving model to bestmodelRFMD.hdf5

249/249 [==============================] - 174s 697ms/step - loss: 0.3177 - accuracy: 0.8919 - val\_loss: 0.3734 - val\_accuracy: 0.8919

Epoch 8/20

249/249 [==============================] - ETA: 0s - loss: 0.3050 - accuracy: 0.8973

Epoch 8: val\_loss did not improve from 0.37341

249/249 [==============================] - 205s 822ms/step - loss: 0.3050 - accuracy: 0.8973 - val\_loss: 0.4537 - val\_accuracy: 0.8742

Epoch 9/20

249/249 [==============================] - ETA: 0s - loss: 0.2929 - accuracy: 0.8979

Epoch 9: val\_loss did not improve from 0.37341

249/249 [==============================] - 192s 772ms/step - loss: 0.2929 - accuracy: 0.8979 - val\_loss: 0.4273 - val\_accuracy: 0.8478

Epoch 10/20

249/249 [==============================] - ETA: 0s - loss: 0.2716 - accuracy: 0.9100

Epoch 10: val\_loss did not improve from 0.37341

249/249 [==============================] - 215s 864ms/step - loss: 0.2716 - accuracy: 0.9100 - val\_loss: 0.5091 - val\_accuracy: 0.8278

Epoch 11/20

249/249 [==============================] - ETA: 0s - loss: 0.2606 - accuracy: 0.9124

Epoch 11: val\_loss did not improve from 0.37341

249/249 [==============================] - 205s 823ms/step - loss: 0.2606 - accuracy: 0.9124 - val\_loss: 1.2126 - val\_accuracy: 0.5015

Epoch 12/20

249/249 [==============================] - ETA: 0s - loss: 0.2551 - accuracy: 0.9152

Epoch 12: val\_loss improved from 0.37341 to 0.33537, saving model to bestmodelRFMD.hdf5

249/249 [==============================] - 169s 676ms/step - loss: 0.2551 - accuracy: 0.9152 - val\_loss: 0.3354 - val\_accuracy: 0.8855

Epoch 13/20

249/249 [==============================] - ETA: 0s - loss: 0.2362 - accuracy: 0.9212

Epoch 13: val\_loss did not improve from 0.33537

249/249 [==============================] - 175s 701ms/step - loss: 0.2362 - accuracy: 0.9212 - val\_loss: 0.4933 - val\_accuracy: 0.8139

Epoch 14/20

249/249 [==============================] - ETA: 0s - loss: 0.2260 - accuracy: 0.9262

Epoch 14: val\_loss did not improve from 0.33537

249/249 [==============================] - 209s 837ms/step - loss: 0.2260 - accuracy: 0.9262 - val\_loss: 1.5153 - val\_accuracy: 0.4653

Epoch 15/20

249/249 [==============================] - ETA: 0s - loss: 0.2235 - accuracy: 0.9251

Epoch 15: val\_loss did not improve from 0.33537

249/249 [==============================] - 205s 822ms/step - loss: 0.2235 - accuracy: 0.9251 - val\_loss: 0.3401 - val\_accuracy: 0.9118

Epoch 16/20

249/249 [==============================] - ETA: 0s - loss: 0.2191 - accuracy: 0.9281

Epoch 16: val\_loss improved from 0.33537 to 0.24521, saving model to bestmodelRFMD.hdf5

249/249 [==============================] - 205s 823ms/step - loss: 0.2191 - accuracy: 0.9281 - val\_loss: 0.2452 - val\_accuracy: 0.9179

Epoch 17/20

249/249 [==============================] - ETA: 0s - loss: 0.2007 - accuracy: 0.9374

Epoch 17: val\_loss improved from 0.24521 to 0.24303, saving model to bestmodelRFMD.hdf5

249/249 [==============================] - 205s 825ms/step - loss: 0.2007 - accuracy: 0.9374 - val\_loss: 0.2430 - val\_accuracy: 0.9258

Epoch 18/20

249/249 [==============================] - ETA: 0s - loss: 0.2008 - accuracy: 0.9358

Epoch 18: val\_loss did not improve from 0.24303

249/249 [==============================] - 235s 941ms/step - loss: 0.2008 - accuracy: 0.9358 - val\_loss: 0.4309 - val\_accuracy: 0.8723

Epoch 19/20

249/249 [==============================] - ETA: 0s - loss: 0.1978 - accuracy: 0.9332

Epoch 19: val\_loss did not improve from 0.24303

249/249 [==============================] - 186s 748ms/step - loss: 0.1978 - accuracy: 0.9332 - val\_loss: 0.6558 - val\_accuracy: 0.8414

Epoch 20/20

249/249 [==============================] - ETA: 0s - loss: 0.1835 - accuracy: 0.9460

Epoch 20: val\_loss did not improve from 0.24303

249/249 [==============================] - 205s 823ms/step - loss: 0.1835 - accuracy: 0.9460 - val\_loss: 0.4045 - val\_accuracy: 0.8715