Model Output

%runfile 'C:/Users/R c/.spyder-py3/breast_cancer_model_optimized.py' --wdir 2025-08-24 14:36:41.349697: I tensorflow/core/util/port.cc:153] oneDNN custom operations are on. You may see slightly different numerical results due to floating-point round-off errors from different computation orders. To turn them off, set the environment variable `TF_ENABLE_ONEDNN_OPTS=0`.

2025-08-24 14:36:47.317598: I tensorflow/core/util/port.cc:153] oneDNN custom operations are on. You may see slightly different numerical results due to floating-point round-off errors from different computation orders. To turn them off, set the environment variable `TF_ENABLE_ONEDNN_OPTS=0`.

WARNING:tensorflow:From C:\Users\R c\anaconda3\Lib\site-

packages\keras\src\backend\common\global_state.py:82: The name tf.reset_default_graph is deprecated. Please use tf.compat.v1.reset_default_graph instead.

Starting breast cancer classification training...

Found 24576 files belonging to 2 classes.

Using 19661 files for training.

2025-08-24 14:36:51.625440: I tensorflow/core/platform/cpu_feature_guard.cc:210] This TensorFlow binary is optimized to use available CPU instructions in performance-critical operations.

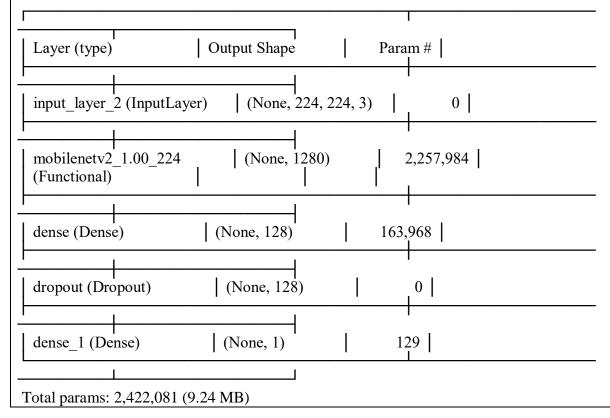
To enable the following instructions: SSE3 SSE4.1 SSE4.2 AVX AVX2 FMA, in other operations, rebuild TensorFlow with the appropriate compiler flags.

Found 24576 files belonging to 2 classes.

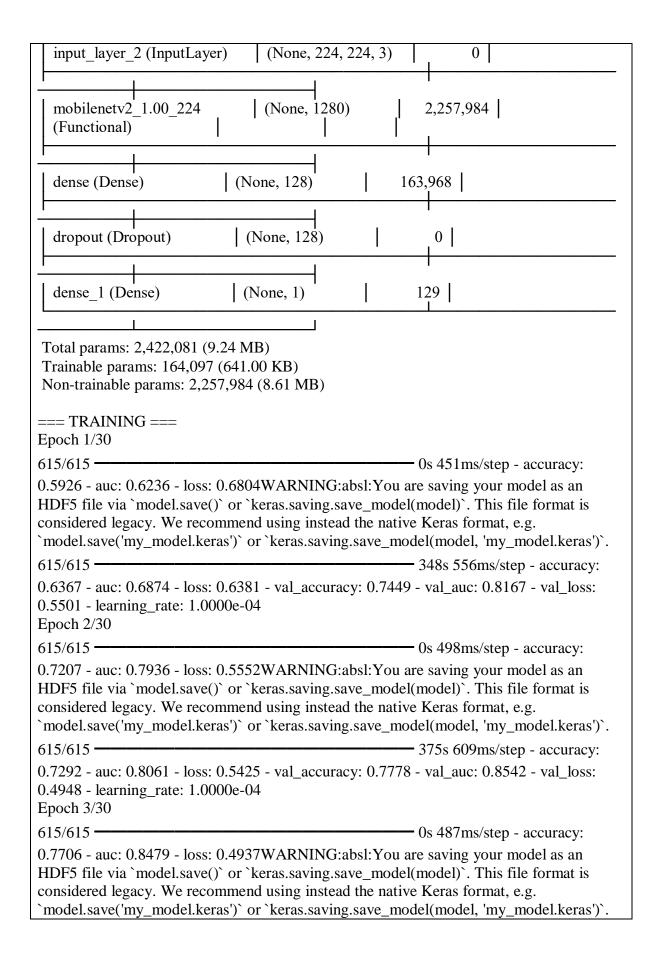
Using 4915 files for validation.

2025-08-24 14:38:09.256417: I tensorflow/core/framework/local_rendezvous.cc:407] Local rendezvous is aborting with status: OUT_OF_RANGE: End of sequence

Model: "functional_1"



Trainable params: 164,097 Non-trainable params: 2,25	· · · · · · · · · · · · · · · · · · ·
=== TRAINING ===	
Epoch 1/30	
-	Os 592ms/step - accuracy:
	0.6702WARNING:absl:You are saving your model as an
	or `keras.saving.save_model(model)`. This file format is
	mmend using instead the native Keras format, e.g.
`model.save('my_model.ker	as')` or `keras.saving.save_model(model, 'my_model.keras')`.
615/615 ————	478s 766ms/step - accuracy:
	0.6293 - val_accuracy: 0.7320 - val_auc: 0.8101 - val_loss:
0.5586 - learning_rate: 1.00	00e-04
Epoch 2/30	
	Os 547ms/step - accuracy:
	0.5558WARNING:absl:You are saving your model as an
	")` or `keras.saving.save_model(model)`. This file format is mmend using instead the native Keras format, e.g.
0 •	as')` or `keras.saving.save_model(model, 'my_model.keras')`.
=	411s 667ms/step - accuracy:
	0.5449 - val_accuracy: 0.7703 - val_auc: 0.8528 - val_loss:
0.4999 - learning_rate: 1.00	
Epoch 3/30	
218/615 ————	3:44 566ms/step - accuracy:
	0.4874^CTerminate batch job (Y/N)?
The kernel died, restarting	
± •	der-py3/breast_cancer_model_optimized.py'wdir
WARNING:tensorflow:From	m C:\Users\R c\anaconda3\Lib\site-
WARNING:tensorflow:From packages\keras\src\backend\	m C:\Users\R c\anaconda3\Lib\site- \common\global_state.py:82: The name tf.reset_default_graph
WARNING:tensorflow:From packages\keras\src\backend\	m C:\Users\R c\anaconda3\Lib\site-
WARNING:tensorflow:From packages\keras\src\backend\ is deprecated. Please use tf.c.	m C:\Users\R c\anaconda3\Lib\site-\common\global_state.py:82: The name tf.reset_default_graph compat.v1.reset_default_graph instead.
WARNING:tensorflow:From packages\keras\src\backend\ is deprecated. Please use tf.c. Starting breast cancer classic Found 24576 files belonging	m C:\Users\R c\anaconda3\Lib\site-\common\global_state.py:82: The name tf.reset_default_graph compat.v1.reset_default_graph instead. fication training g to 2 classes.
WARNING:tensorflow:From packages\keras\src\backend\takens\src\backend	m C:\Users\R c\anaconda3\Lib\site-\common\global_state.py:82: The name tf.reset_default_graph compat.v1.reset_default_graph instead. fication training g to 2 classes. ng.
WARNING:tensorflow:From packages\keras\src\backend\takensorflow: From packages\keras\src\backend\takensorflow: From packages\keras\src\backend\takensorflow: From Starting breast cancer classiff Found 24576 files belonging Using 19661 files for training Found 24576 files belonging	m C:\Users\R c\anaconda3\Lib\site-\common\global_state.py:82: The name tf.reset_default_graph compat.v1.reset_default_graph instead. fication training g to 2 classes. g to 2 classes.
WARNING:tensorflow:From packages\keras\src\backend\tensorflow:From packages\keras\src\backend\tensorflow:From deprecated. Please use tf. of Starting breast cancer classiff Found 24576 files belonging Using 19661 files for training Found 24576 files belonging Using 4915 files for validations.	m C:\Users\R c\anaconda3\Lib\site-\common\global_state.py:82: The name tf.reset_default_graph compat.v1.reset_default_graph instead. fication training g to 2 classes. g to 2 classes.
WARNING:tensorflow:From packages\keras\src\backend\takensorflow: From packages\keras\src\backend\takensorflow: From packages\keras\src\backend\takensorflow: From Starting breast cancer classiff Found 24576 files belonging Using 19661 files for training Found 24576 files belonging	m C:\Users\R c\anaconda3\Lib\site-\common\global_state.py:82: The name tf.reset_default_graph compat.v1.reset_default_graph instead. fication training g to 2 classes. g to 2 classes.
WARNING:tensorflow:From packages\keras\src\backend\tensorflow:From p	m C:\Users\R c\anaconda3\Lib\site-\common\global_state.py:82: The name tf.reset_default_graph compat.v1.reset_default_graph instead. fication training g to 2 classes. ng. g to 2 classes. ion.
WARNING:tensorflow:From packages\keras\src\backend\tensorflow:From packages\keras\src\backend\tensorflow:From deprecated. Please use tf. of Starting breast cancer classiff Found 24576 files belonging Using 19661 files for training Found 24576 files belonging Using 4915 files for validations.	m C:\Users\R c\anaconda3\Lib\site-\common\global_state.py:82: The name tf.reset_default_graph compat.v1.reset_default_graph instead. fication training g to 2 classes. g to 2 classes.
WARNING:tensorflow:From packages\keras\src\backend\tensorflow:From p	m C:\Users\R c\anaconda3\Lib\site-\common\global_state.py:82: The name tf.reset_default_graph compat.v1.reset_default_graph instead. fication training g to 2 classes. ng. g to 2 classes. ion.



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615/615 -
                                                    —— 376s 611ms/step - accuracy:
0.7725 - auc: 0.8519 - loss: 0.4869 - val accuracy: 0.7986 - val auc: 0.8777 - val loss:
0.4602 - learning_rate: 1.0000e-04
Epoch 4/30
615/615 -
                                                      - 0s 608ms/step - accuracy:
0.7907 - auc: 0.8730 - loss: 0.4555WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my model.keras')` or `keras.saving.save model(model, 'my model.keras')`.
                                            439s 712ms/step - accuracy:
0.7935 - auc: 0.8774 - loss: 0.4487 - val accuracy: 0.8187 - val auc: 0.8972 - val loss:
0.4255 - learning_rate: 1.0000e-04
Epoch 5/30
615/615 -
                                                      - 0s 486ms/step - accuracy:
0.8103 - auc: 0.8906 - loss: 0.4263WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                                 363s 589ms/step - accuracy:
615/615 -
0.8078 - auc: 0.8905 - loss: 0.4267 - val_accuracy: 0.8208 - val_auc: 0.9041 - val_loss:
0.4133 - learning rate: 1.0000e-04
Epoch 6/30
615/615 -
                                             Os 490ms/step - accuracy:
0.8200 - auc: 0.9043 - loss: 0.4018WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
615/615 -
                                                      - 368s 597ms/step - accuracy:
0.8216 - auc: 0.9053 - loss: 0.3994 - val_accuracy: 0.8264 - val_auc: 0.9085 - val_loss:
0.4023 - learning_rate: 1.0000e-04
Epoch 7/30
                                                     — 0s 504ms/step - accuracy:
615/615 -
0.8362 - auc: 0.9124 - loss: 0.3859WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                               379s 616ms/step - accuracy:
615/615 -
0.8337 - auc: 0.9122 - loss: 0.3862 - val accuracy: 0.8338 - val auc: 0.9179 - val loss:
0.3847 - learning_rate: 1.0000e-04
Epoch 8/30
615/615 —
                                                     — 0s 511ms/step - accuracy:
0.8518 - auc: 0.9283 - loss: 0.3550WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my model.keras')` or `keras.saving.save model(model, 'my model.keras')`.
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615/615 -
                                                    — 384s 623ms/step - accuracy:
0.8467 - auc: 0.9257 - loss: 0.3586 - val accuracy: 0.8466 - val auc: 0.9268 - val loss:
0.3633 - learning_rate: 1.0000e-04
Epoch 9/30
                                                     ─ 0s 512ms/step - accuracy:
615/615 -
0.8526 - auc: 0.9299 - loss: 0.3477WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my model.keras')` or `keras.saving.save model(model, 'my model.keras')`.
                                           386s 626ms/step - accuracy:
0.8544 - auc: 0.9322 - loss: 0.3437 - val accuracy: 0.8462 - val auc: 0.9296 - val loss:
0.3628 - learning_rate: 1.0000e-04
Epoch 10/30
615/615 -
                                                      - 0s 511ms/step - accuracy:
0.8622 - auc: 0.9361 - loss: 0.3338WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                                384s 623ms/step - accuracy:
615/615 -
0.8598 - auc: 0.9353 - loss: 0.3351 - val_accuracy: 0.8496 - val_auc: 0.9301 - val_loss:
0.3496 - learning rate: 1.0000e-04
Epoch 11/30
615/615 -
                                             Os 552ms/step - accuracy:
0.8714 - auc: 0.9450 - loss: 0.3121WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
615/615 -
                                               419s 681ms/step - accuracy:
0.8662 - auc: 0.9429 - loss: 0.3164 - val_accuracy: 0.8625 - val_auc: 0.9399 - val_loss:
0.3300 - learning_rate: 1.0000e-04
Epoch 12/30
                                                     - 0s 522ms/step - accuracy:
615/615 -
0.8727 - auc: 0.9462 - loss: 0.3077WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                              384s 623ms/step - accuracy:
615/615 -
0.8730 - auc: 0.9457 - loss: 0.3090 - val accuracy: 0.8700 - val auc: 0.9447 - val loss:
0.3185 - learning_rate: 1.0000e-04
Epoch 13/30
615/615 —
                                                   —— 334s 543ms/step - accuracy:
0.8790 - auc: 0.9512 - loss: 0.2944 - val_accuracy: 0.8653 - val_auc: 0.9443 - val_loss:
0.3195 - learning rate: 1.0000e-04
Epoch 14/30
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615/615 -
                                                      - 0s 615ms/step - accuracy:
0.8879 - auc: 0.9585 - loss: 0.2749WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                                                     - 523s 849ms/step - accuracy:
615/615 -
0.8858 - auc: 0.9564 - loss: 0.2792 - val accuracy: 0.8716 - val auc: 0.9481 - val loss:
0.3009 - learning_rate: 1.0000e-04
Epoch 15/30
                                   Os 643ms/step - accuracy:
615/615 -
0.8891 - auc: 0.9589 - loss: 0.2706WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                           470s 761ms/step - accuracy:
615/615 -
0.8875 - auc: 0.9574 - loss: 0.2752 - val_accuracy: 0.8781 - val_auc: 0.9515 - val_loss:
0.2935 - learning rate: 1.0000e-04
Epoch 16/30
615/615 —
                                                Os 482ms/step - accuracy:
0.8941 - auc: 0.9611 - loss: 0.2630WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                                 369s 598ms/step - accuracy:
615/615 -
0.8890 - auc: 0.9582 - loss: 0.2715 - val_accuracy: 0.8850 - val_auc: 0.9552 - val_loss:
0.2833 - learning rate: 1.0000e-04
Epoch 17/30
615/615 —
                                                     - 0s 474ms/step - accuracy:
0.8987 - auc: 0.9628 - loss: 0.2581WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                                                     ─ 358s 581ms/step - accuracy:
0.8956 - auc: 0.9614 - loss: 0.2624 - val accuracy: 0.8844 - val auc: 0.9578 - val loss:
0.2855 - learning_rate: 1.0000e-04
Epoch 18/30
615/615 -
                                                      - 0s 615ms/step - accuracy:
0.9024 - auc: 0.9656 - loss: 0.2485WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                                        497s 768ms/step - accuracy:
0.8978 - auc: 0.9641 - loss: 0.2529 - val accuracy: 0.8883 - val auc: 0.9589 - val loss:
0.2742 - learning_rate: 1.0000e-04
Epoch 19/30
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615/615 -
                                                    - 0s 706ms/step - accuracy:
0.9032 - auc: 0.9665 - loss: 0.2456WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                                 ______ 529s 859ms/step - accuracy:
615/615 -
0.9006 - auc: 0.9655 - loss: 0.2483 - val accuracy: 0.8930 - val auc: 0.9614 - val loss:
0.2668 - learning_rate: 1.0000e-04
Epoch 20/30
                                Os 730ms/step - accuracy:
615/615 -
0.9062 - auc: 0.9689 - loss: 0.2365WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                        542s 879ms/step - accuracy:
615/615 -
0.9028 - auc: 0.9670 - loss: 0.2422 - val_accuracy: 0.8970 - val_auc: 0.9647 - val_loss:
0.2558 - learning rate: 1.0000e-04
Epoch 21/30
615/615 —
                                            Os 655ms/step - accuracy:
0.9066 - auc: 0.9694 - loss: 0.2340WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                             492s 798ms/step - accuracy:
615/615 -
0.9075 - auc: 0.9697 - loss: 0.2337 - val_accuracy: 0.8993 - val_auc: 0.9664 - val_loss:
0.2587 - learning rate: 1.0000e-04
Epoch 22/30
615/615 —
                                                    - 0s 648ms/step - accuracy:
0.9122 - auc: 0.9726 - loss: 0.2221
Epoch 22: ReduceLROnPlateau reducing learning rate to 4.999999873689376e-05.
             486s 790ms/step - accuracy:
615/615 -
0.9094 - auc: 0.9716 - loss: 0.2258 - val_accuracy: 0.8936 - val_auc: 0.9636 - val_loss:
0.2564 - learning_rate: 1.0000e-04
Epoch 23/30
615/615 —
                                                   — 0s 655ms/step - accuracy:
0.9194 - auc: 0.9765 - loss: 0.2100WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                                  492s 798ms/step - accuracy:
0.9161 - auc: 0.9757 - loss: 0.2121 - val_accuracy: 0.9040 - val_auc: 0.9691 - val_loss:
0.2373 - learning_rate: 5.0000e-05
Epoch 24/30
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615/615 -
                                                     - 0s 649ms/step - accuracy:
0.9158 - auc: 0.9753 - loss: 0.2119WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                                               488s 793ms/step - accuracy:
615/615 -
0.9161 - auc: 0.9744 - loss: 0.2154 - val accuracy: 0.9097 - val auc: 0.9705 - val loss:
0.2314 - learning_rate: 5.0000e-05
Epoch 25/30
                                   489s 794ms/step - accuracy:
615/615 -
0.9148 - auc: 0.9758 - loss: 0.2100 - val accuracy: 0.9099 - val auc: 0.9702 - val loss:
0.2332 - learning rate: 5.0000e-05
Epoch 26/30
615/615 —
                                                     - 0s 655ms/step - accuracy:
0.9233 - auc: 0.9789 - loss: 0.1988WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                               499s 810ms/step - accuracy:
615/615 -
0.9182 - auc: 0.9766 - loss: 0.2071 - val_accuracy: 0.9117 - val_auc: 0.9717 - val_loss:
0.2285 - learning rate: 5.0000e-05
Epoch 27/30
                                      Os 653ms/step - accuracy:
615/615 -
0.9174 - auc: 0.9754 - loss: 0.2095WARNING:absl:You are saving your model as an
HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
                                    483s 784ms/step - accuracy:
615/615 —
0.9183 - auc: 0.9760 - loss: 0.2086 - val_accuracy: 0.9150 - val_auc: 0.9729 - val_loss:
0.2235 - learning_rate: 5.0000e-05
Epoch 28/30
615/615 -
                                                    — 457s 742ms/step - accuracy:
0.9180 - auc: 0.9776 - loss: 0.2035 - val_accuracy: 0.9119 - val_auc: 0.9714 - val_loss:
0.2282 - learning rate: 5.0000e-05
Epoch 29/30
615/615 -
                                                      - 0s 607ms/step - accuracy:
0.9238 - auc: 0.9788 - loss: 0.1973
Epoch 29: ReduceLROnPlateau reducing learning rate to 2.499999936844688e-05.
                                            455s 738ms/step - accuracy:
0.9243 - auc: 0.9785 - loss: 0.1988 - val accuracy: 0.9121 - val auc: 0.9725 - val loss:
0.2244 - learning_rate: 5.0000e-05
Epoch 30/30
615/615 —
                                                    — 0s 523ms/step - accuracy:
0.9262 - auc: 0.9805 - loss: 0.1908WARNING:absl:You are saving your model as an
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HDF5 file via `model.save()` or `keras.saving.save_model(model)`. This file format is
considered legacy. We recommend using instead the native Keras format, e.g.
`model.save('my_model.keras')` or `keras.saving.save_model(model, 'my_model.keras')`.
615/615
                                                    - 395s 641ms/step - accuracy:
0.9262 - auc: 0.9802 - loss: 0.1918 - val_accuracy: 0.9164 - val_auc: 0.9733 - val_loss:
0.2191 - learning rate: 2.5000e-05
WARNING:absl:You are saving your model as an HDF5 file via `model.save()` or
`keras.saving.save_model(model)`. This file format is considered legacy. We recommend
using instead the native Keras format, e.g. `model.save('my_model.keras')` or
`keras.saving.save_model(model, 'my_model.keras')`.
Keras model saved successfully!
Starting TFLite conversion...
INFO:tensorflow:Assets written to:
C:\Users\RC2B28~1\AppData\Local\Temp\tmpuf_pvh5_\assets
INFO:tensorflow:Assets written to:
Saved artifact at 'C:\Users\RC2B28~1\AppData\Local\Temp\tmpuf pvh5 '. The following
endpoints are available:
* Endpoint 'serve'
 args_0 (POSITIONAL_ONLY): TensorSpec(shape=(None, 224, 224, 3),
dtype=tf.float32, name='keras_tensor_158')
Output Type:
TensorSpec(shape=(None, 1), dtype=tf.float32, name=None)
Captures:
 2154840954384: TensorSpec(shape=(), dtype=tf.resource, name=None)
 2154840954576: TensorSpec(shape=(), dtype=tf.resource, name=None)
 2154840954768: TensorSpec(shape=(), dtype=tf.resource, name=None)
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C:\Users\R c\anaconda3\Lib\site-packages\tensorflow\lite\python\convert.py:863:
UserWarning: Statistics for quantized inputs were expected, but not specified; continuing
anyway.
 warnings.warn(
Created fully quantized uint8 model
TFLite conversion successful!
```

Final Evaluation:

C:\Users\R c\anaconda3\Lib\site-packages\tensorflow\lite\python\interpreter.py:457:
UserWarning: Warning: tf.lite.Interpreter is deprecated and is scheduled for deletion in TF 2.20. Please use the LiteRT interpreter from the ai_edge_litert package.

See the [migration guide](https://ai.google.dev/edge/litert/migration) for details.

warnings.warn(_INTERPRETER_DELETION_WARNING)

154/154 — 72s 464ms/step - accuracy:

0.9164 - auc: 0.9733 - loss: 0.2191 Validation Accuracy: 0.9164 Validation AUC: 0.9733