Epoch 1/30

1682/1682 [==============================] - ETA: 0s - loss: 15.9701 - accuracy: 0.50542024-04-17 00:38:40.775336: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 10509312000 exceeds 10% of free system memory.

2024-04-17 00:38:50.537948: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 10509312000 exceeds 10% of free system memory.

2024-04-17 00:38:57.020262: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 1847623680 exceeds 10% of free system memory.

2024-04-17 00:38:57.925574: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 2463498240 exceeds 10% of free system memory.

1682/1682 [==============================] - 1258s 746ms/step - loss: 15.9701 - accuracy: 0.5054 - val\_loss: 9.5663 - val\_accuracy: 0.5419 - lr: 1.0000e-05

Epoch 2/30

1682/1682 [==============================] - ETA: 0s - loss: 6.0945 - accuracy: 0.51322024-04-17 00:59:53.801514: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 10509312000 exceeds 10% of free system memory.

1682/1682 [==============================] - 1266s 753ms/step - loss: 6.0945 - accuracy: 0.5132 - val\_loss: 3.5685 - val\_accuracy: 0.5496 - lr: 1.0000e-05

Epoch 3/30

1682/1682 [==============================] - 1207s 717ms/step - loss: 2.3258 - accuracy: 0.5188 - val\_loss: 1.4811 - val\_accuracy: 0.5468 - lr: 1.0000e-05

Epoch 4/30

1682/1682 [==============================] - 1162s 691ms/step - loss: 1.1199 - accuracy: 0.5115 - val\_loss: 0.8855 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 5/30

1682/1682 [==============================] - 1075s 639ms/step - loss: 0.7905 - accuracy: 0.5008 - val\_loss: 0.7307 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 6/30

1682/1682 [==============================] - 1073s 638ms/step - loss: 0.7092 - accuracy: 0.4989 - val\_loss: 0.6971 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 7/30

1682/1682 [==============================] - 1061s 631ms/step - loss: 0.6943 - accuracy: 0.4999 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 8/30

1682/1682 [==============================] - 1066s 633ms/step - loss: 0.6932 - accuracy: 0.5007 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 9/30

1682/1682 [==============================] - 1099s 653ms/step - loss: 0.6931 - accuracy: 0.5002 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 10/30

1682/1682 [==============================] - 1113s 662ms/step - loss: 0.6932 - accuracy: 0.4993 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 11/30

1682/1682 [==============================] - 1107s 658ms/step - loss: 0.6931 - accuracy: 0.5010 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 12/30

1682/1682 [==============================] - ETA: 0s - loss: 0.6931 - accuracy: 0.5005

Epoch 12: ReduceLROnPlateau reducing learning rate to 5.999999848427251e-06.

1682/1682 [==============================] - 1166s 693ms/step - loss: 0.6931 - accuracy: 0.5005 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 13/30

1682/1682 [==============================] - 1130s 672ms/step - loss: 0.6931 - accuracy: 0.5005 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 6.0000e-06

Epoch 14/30

1682/1682 [==============================] - 1095s 651ms/step - loss: 0.6931 - accuracy: 0.5002 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 6.0000e-06

2883/2883 [==============================] - 33s 11ms/step

Evaluation Metrics:

Precision: 0.5000

Recall: 1.0000

F1 Score: 0.6666

ROC AUC: 0.5000

PR AUC: 0.5000

MCC: 0.0000

y\_pred = (test\_scores > 0.6).astype(int)

...: y\_true = y\_test.astype(int)

...:

...: # Calculate evaluation metrics

...: precision = precision\_score(y\_true, y\_pred)

...: recall = recall\_score(y\_true, y\_pred)

...: f1 = f1\_score(y\_true, y\_pred)

...: roc\_auc = roc\_auc\_score(y\_true, test\_scores)

...: pr\_auc = average\_precision\_score(y\_true, test\_scores)

...: mcc = matthews\_corrcoef(y\_true, y\_pred)

...:

...: # Confusion Matrix

...: conf\_matrix = confusion\_matrix(y\_true, y\_pred)

...:

...: # Display evaluation metrics

...: print("\nEvaluation Metrics:")

...: print(f'Precision: {precision:.4f}')

...: print(f'Recall: {recall:.4f}')

...: print(f'F1 Score: {f1:.4f}')

...: print(f'ROC AUC: {roc\_auc:.4f}')

...: print(f'PR AUC: {pr\_auc:.4f}')

...: print(f'MCC: {mcc:.4f}')

C:\Users\skape\PycharmProjects\Thesis\_tensorflow\.venv\lib\site-packages\sklearn\metrics\\_classification.py:1471: UndefinedMetricWarning: Precision is ill-defined and being set to 0.0 due to no predicted samples. Use `zero\_division` parameter to control this behavior.

\_warn\_prf(average, modifier, msg\_start, len(result))

Evaluation Metrics:

Precision: 0.0000

Recall: 0.0000

F1 Score: 0.0000

ROC AUC: 0.5000

PR AUC: 0.5000

MCC: 0.0000

In [7]: y\_pred = (test\_scores > 0.7).astype(int)

...: y\_true = y\_test.astype(int)

...:

...: # Calculate evaluation metrics

...: precision = precision\_score(y\_true, y\_pred)

...: recall = recall\_score(y\_true, y\_pred)

...: f1 = f1\_score(y\_true, y\_pred)

...: roc\_auc = roc\_auc\_score(y\_true, test\_scores)

...: pr\_auc = average\_precision\_score(y\_true, test\_scores)

...: mcc = matthews\_corrcoef(y\_true, y\_pred)

...:

...: # Confusion Matrix

...: conf\_matrix = confusion\_matrix(y\_true, y\_pred)

...:

...: # Display evaluation metrics

...: print("\nEvaluation Metrics:")

...: print(f'Precision: {precision:.4f}')

...: print(f'Recall: {recall:.4f}')

...: print(f'F1 Score: {f1:.4f}')

...: print(f'ROC AUC: {roc\_auc:.4f}')

...: print(f'PR AUC: {pr\_auc:.4f}')

...: print(f'MCC: {mcc:.4f}')

C:\Users\skape\PycharmProjects\Thesis\_tensorflow\.venv\lib\site-packages\sklearn\metrics\\_classification.py:1471: UndefinedMetricWarning: Precision is ill-defined and being set to 0.0 due to no predicted samples. Use `zero\_division` parameter to control this behavior.

\_warn\_prf(average, modifier, msg\_start, len(result))

Evaluation Metrics:

Precision: 0.0000

Recall: 0.0000

F1 Score: 0.0000

ROC AUC: 0.5000

PR AUC: 0.5000

MCC: 0.0000

Εικόνα που περιέχει κείμενο, στιγμιότυπο οθόνης, διάγραμμα, ορθογώνιο παραλληλόγραμμο

Περιγραφή που δημιουργήθηκε αυτόματα

Εικόνα που περιέχει κείμενο, στιγμιότυπο οθόνης, διάγραμμα, γραμμή

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