Epoch 1/20

1682/1682 [==============================] - ETA: 0s - loss: 17.8886 - accuracy: 0.50112024-04-15 21:45:10.595575: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 10509312000 exceeds 10% of free system memory.

2024-04-15 21:45:16.059893: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 2463498240 exceeds 10% of free system memory.

1682/1682 [==============================] - 797s 472ms/step - loss: 17.8886 - accuracy: 0.5011 - val\_loss: 12.0280 - val\_accuracy: 0.5227 - lr: 1.0000e-05

Epoch 2/20

1682/1682 [==============================] - ETA: 0s - loss: 8.0859 - accuracy: 0.50572024-04-15 21:58:08.940133: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 10509312000 exceeds 10% of free system memory.

2024-04-15 21:58:13.627065: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 2463498240 exceeds 10% of free system memory.

1682/1682 [==============================] - 777s 462ms/step - loss: 8.0859 - accuracy: 0.5057 - val\_loss: 4.9779 - val\_accuracy: 0.5297 - lr: 1.0000e-05

Epoch 3/20

1682/1682 [==============================] - ETA: 0s - loss: 3.2199 - accuracy: 0.50912024-04-15 22:11:01.467766: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 10509312000 exceeds 10% of free system memory.

1682/1682 [==============================] - 773s 459ms/step - loss: 3.2199 - accuracy: 0.5091 - val\_loss: 1.9566 - val\_accuracy: 0.5247 - lr: 1.0000e-05

Epoch 4/20

1682/1682 [==============================] - 764s 454ms/step - loss: 1.3734 - accuracy: 0.5135 - val\_loss: 0.9935 - val\_accuracy: 0.5160 - lr: 1.0000e-05

Epoch 5/20

1682/1682 [==============================] - 777s 462ms/step - loss: 0.8446 - accuracy: 0.5096 - val\_loss: 0.7524 - val\_accuracy: 0.5231 - lr: 1.0000e-05

Epoch 6/20

1682/1682 [==============================] - 786s 468ms/step - loss: 0.7196 - accuracy: 0.5033 - val\_loss: 0.7007 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 7/20

1682/1682 [==============================] - 776s 461ms/step - loss: 0.6956 - accuracy: 0.5000 - val\_loss: 0.6934 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 8/20

1682/1682 [==============================] - 785s 467ms/step - loss: 0.6932 - accuracy: 0.4997 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 9/20

1682/1682 [==============================] - 778s 462ms/step - loss: 0.6931 - accuracy: 0.5003 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 10/20

1682/1682 [==============================] - 816s 485ms/step - loss: 0.6931 - accuracy: 0.5003 - val\_loss: 0.6931 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 11/20

1682/1682 [==============================] - 794s 472ms/step - loss: 0.6931 - accuracy: 0.5000 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 12/20

1682/1682 [==============================] - 778s 463ms/step - loss: 0.6931 - accuracy: 0.4997 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 13/20

1682/1682 [==============================] - ETA: 0s - loss: 0.6931 - accuracy: 0.5003

Epoch 13: ReduceLROnPlateau reducing learning rate to 5.999999848427251e-06.

1682/1682 [==============================] - 772s 459ms/step - loss: 0.6931 - accuracy: 0.5003 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 1.0000e-05

Epoch 14/20

1682/1682 [==============================] - 812s 483ms/step - loss: 0.6931 - accuracy: 0.5005 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 6.0000e-06

Epoch 15/20

1682/1682 [==============================] - 779s 463ms/step - loss: 0.6931 - accuracy: 0.5006 - val\_loss: 0.6932 - val\_accuracy: 0.4976 - lr: 6.0000e-06

2883/2883 [==============================] - 29s 10ms/step

Evaluation Metrics:

Precision: 0.5000

Recall: 1.0000

F1 Score: 0.6666

ROC AUC: 0.5000

PR AUC: 0.5000

MCC: 0.0000

In [3]: 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

Right: 0.50032324

157/157 [==============================] - 3s 17ms/step

Intercept 0.5003232359886169

Prediction\_local [0.50032324]

Right: 0.50032324

157/157 [==============================] - 3s 17ms/step

Intercept 0.5003232359886169

Prediction\_local [0.50032324]

Right: 0.50032324

Εικόνα που περιέχει κείμενο, στιγμιότυπο οθόνης, διάγραμμα, γράφημα

Περιγραφή που δημιουργήθηκε αυτόματα

Εικόνα που περιέχει κείμενο, γραμμή, διάγραμμα, γράφημα

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