Epoch 1/50

1682/1682 [==============================] - ETA: 0s - loss: 1183.4833 - accuracy: 0.53532024-03-28 00:47:59.123236: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 21018624000 exceeds 10% of free system memory.

2024-03-28 00:48:48.708755: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 21018624000 exceeds 10% of free system memory.

2024-03-28 00:49:12.023012: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 2463498240 exceeds 10% of free system memory.

2024-03-28 00:49:12.987611: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 2463498240 exceeds 10% of free system memory.

1682/1682 [==============================] - 2265s 1s/step - loss: 1183.4833 - accuracy: 0.5353 - val\_loss: 1074.4532 - val\_accuracy: 0.4976 - lr: 1.0000e-04

Epoch 2/50

1682/1682 [==============================] - ETA: 0s - loss: 987.2003 - accuracy: 0.50092024-03-28 01:25:27.903023: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 21018624000 exceeds 10% of free system memory.

1682/1682 [==============================] - 2233s 1s/step - loss: 987.2003 - accuracy: 0.5009 - val\_loss: 1073.7626 - val\_accuracy: 0.4976 - lr: 1.0000e-04

Epoch 3/50

1682/1682 [==============================] - 2049s 1s/step - loss: 780.5922 - accuracy: 0.5005 - val\_loss: 1208.5549 - val\_accuracy: 0.4976 - lr: 1.0000e-04

Epoch 4/50

1682/1682 [==============================] - 2020s 1s/step - loss: 562.6981 - accuracy: 0.5005 - val\_loss: 1426.8193 - val\_accuracy: 0.4976 - lr: 1.0000e-04

Epoch 5/50

1682/1682 [==============================] - 2018s 1s/step - loss: 355.2337 - accuracy: 0.5762 - val\_loss: 1542.1240 - val\_accuracy: 0.5324 - lr: 1.0000e-04

Epoch 6/50

1682/1682 [==============================] - 1967s 1s/step - loss: 197.8513 - accuracy: 0.7160 - val\_loss: 1640.0552 - val\_accuracy: 0.5779 - lr: 1.0000e-04

Epoch 7/50

1682/1682 [==============================] - ETA: 0s - loss: 109.8965 - accuracy: 0.8178

Epoch 7: ReduceLROnPlateau reducing learning rate to 5.999999848427251e-05.

1682/1682 [==============================] - 1987s 1s/step - loss: 109.8965 - accuracy: 0.8178 - val\_loss: 1762.0697 - val\_accuracy: 0.6027 - lr: 1.0000e-04

2883/2883 [==============================] - 50s 17ms/step

Evaluation Metrics:

Precision: 0.5000

Recall: 1.0000

F1 Score: 0.6666

ROC AUC: 0.6682

PR AUC: 0.7560

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}')

...:

Evaluation Metrics:

Precision: 0.6005

Recall: 0.5832

F1 Score: 0.5917

ROC AUC: 0.6682

PR AUC: 0.7560

MCC: 0.1954

In [6]: 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}')

...:

Evaluation Metrics:

Precision: 0.9367

Recall: 0.4184

F1 Score: 0.5784

ROC AUC: 0.6682

PR AUC: 0.7560

MCC: 0.4684

Εικόνα που περιέχει κείμενο, στιγμιότυπο οθόνης, διάγραμμα, γραμμή

Περιγραφή που δημιουργήθηκε αυτόματα

Εικόνα που περιέχει κείμενο, στιγμιότυπο οθόνης, διάγραμμα, σχεδίαση

Περιγραφή που δημιουργήθηκε αυτόματα

Εικόνα που περιέχει κείμενο, γραμμή, διάγραμμα, γράφημα

Περιγραφή που δημιουργήθηκε αυτόματα

Εικόνα που περιέχει κείμενο, διάγραμμα, γράφημα, γραμμή

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