Epoch 1/20

1682/1682 [==============================] - ETA: 0s - loss: 909.2181 - accuracy: 0.66282024-03-08 16:17:22.728421: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 21018624000 exceeds 10% of free system memory.

2024-03-08 16:19:09.399973: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 21018624000 exceeds 10% of free system memory.

2024-03-08 16:19:21.957511: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 21018624000 exceeds 10% of free system memory.

2024-03-08 16:19:34.614965: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 21018624000 exceeds 10% of free system memory.

2024-03-08 16:19:46.587662: W tensorflow/tsl/framework/cpu\_allocator\_impl.cc:83] Allocation of 2463498240 exceeds 10% of free system memory.

1682/1682 [==============================] - 3387s 2s/step - loss: 909.2181 - accuracy: 0.6628 - val\_loss: 674.4183 - val\_accuracy: 0.7117 - lr: 1.0000e-04

Epoch 2/20

1682/1682 [==============================] - 3289s 2s/step - loss: 558.4628 - accuracy: 0.7461 - val\_loss: 664.0487 - val\_accuracy: 0.7146 - lr: 1.0000e-04

Epoch 3/20

1682/1682 [==============================] - 3301s 2s/step - loss: 398.8537 - accuracy: 0.8076 - val\_loss: 691.9447 - val\_accuracy: 0.7030 - lr: 1.0000e-04

Epoch 4/20

1682/1682 [==============================] - 3240s 2s/step - loss: 172.8521 - accuracy: 0.9066 - val\_loss: 950.8190 - val\_accuracy: 0.6821 - lr: 1.0000e-04

Epoch 5/20

1682/1682 [==============================] - 3290s 2s/step - loss: 73.8801 - accuracy: 0.9710 - val\_loss: 1339.3235 - val\_accuracy: 0.6761 - lr: 1.0000e-04

2883/2883 [==============================] - 44s 15ms/step

Evaluation Metrics:

Precision: 0.6552

Recall: 0.9017

F1 Score: 0.7590

ROC AUC: 0.8314

PR AUC: 0.8500

MCC: 0.4612

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}')

Evaluation Metrics:

Precision: 0.9388

Recall: 0.4692

F1 Score: 0.6257

ROC AUC: 0.8314

PR AUC: 0.8500

MCC: 0.5066

In [4]: 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: 0.9944

Recall: 0.3217

F1 Score: 0.4861

ROC AUC: 0.8314

PR AUC: 0.8500

MCC: 0.4343

Εικόνα που περιέχει κείμενο, διάγραμμα, γράφημα, γραμμή

Περιγραφή που δημιουργήθηκε αυτόματα

Εικόνα που περιέχει κείμενο, διάγραμμα, γράφημα, γραμμή

Περιγραφή που δημιουργήθηκε αυτόματα

Εικόνα που περιέχει κείμενο, στιγμιότυπο οθόνης, σχεδίαση

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