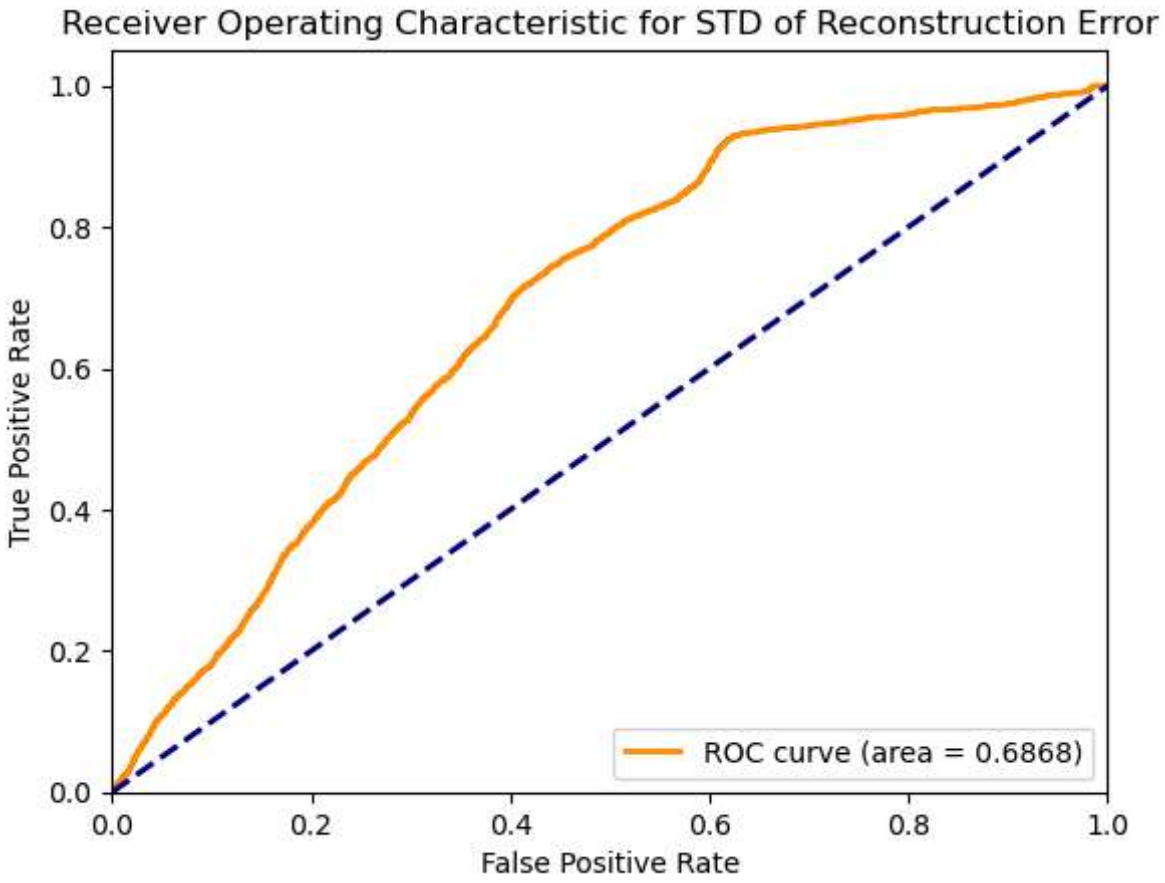
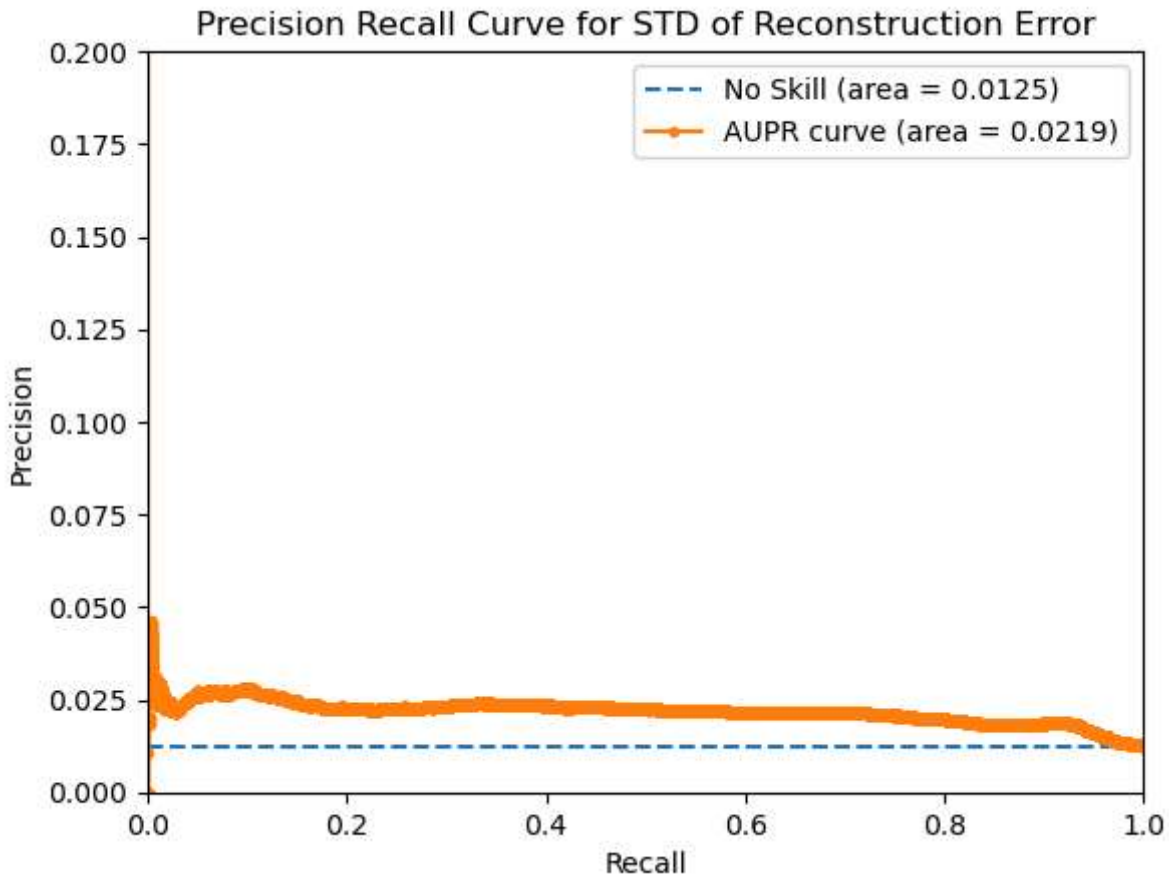
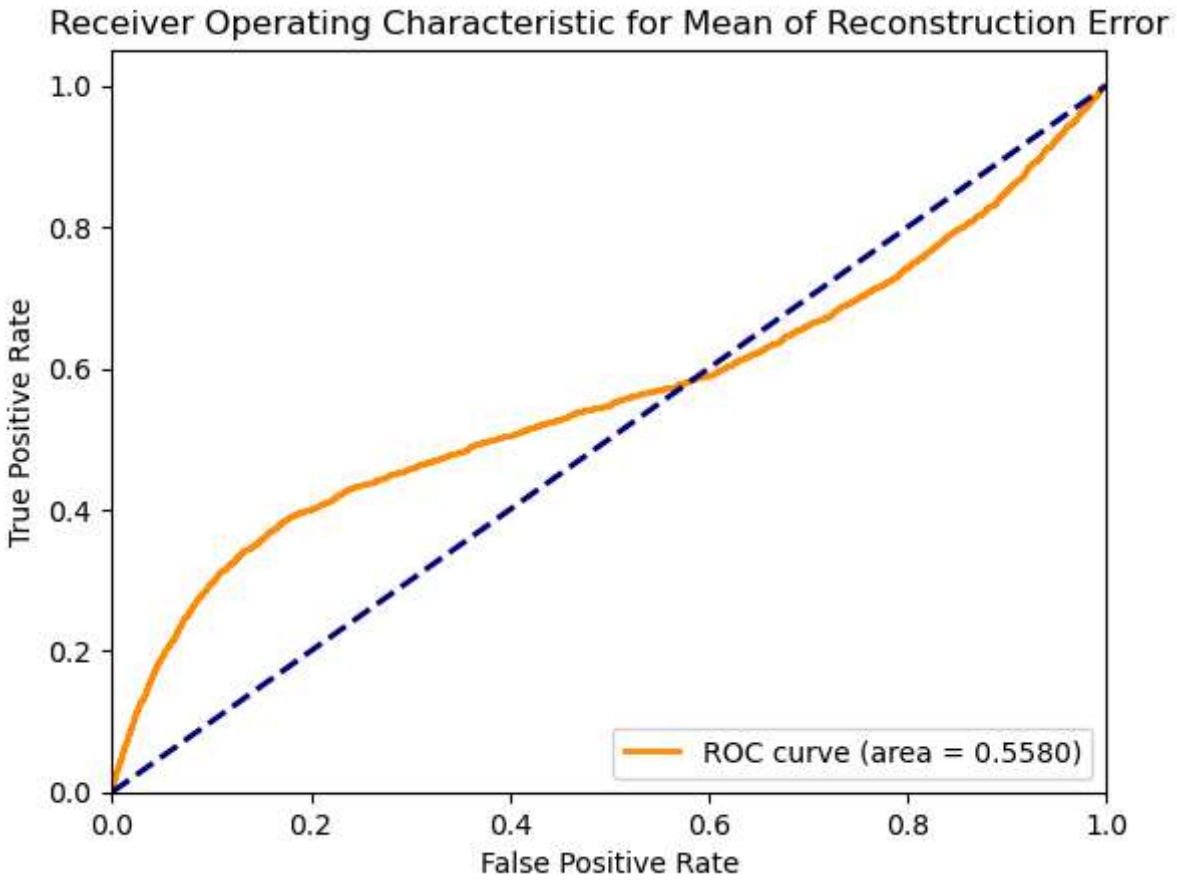
```
Modality 1 - Thermal
Non Falls - 48, Falls - 173

Modality 2 - IP
Non Falls - 48, Falls - 173

Train Dataloader - 48
Test Dataloader - 173

Device Used - cuda

Model Used - EarlySubtraction_3DCAE
Key Frame Extraction - False
Feature Extraction - False
Data Augmentation - False
Spatial Temporal Loss - False

Frame rate adjusted dataset - True
Video length adjustment method - Pad Minimum

Window Length = 8
Stride = 1
Fair Comparison = True
Dropout = 0.25
Learning Rate = 0.0002
Num Epochs = 20
Chunk Size = 64
Forward Chunk Size = 8
Loss Fn = MSELoss()

Training has Begun
epoch [1/20], loss:0.0209
epoch [2/20], loss:0.0202
epoch [3/20], loss:0.0195
epoch [4/20], loss:0.0191
epoch [5/20], loss:0.0188
epoch [6/20], loss:0.0186
epoch [7/20], loss:0.0184
epoch [8/20], loss:0.0183
epoch [9/20], loss:0.0181
epoch [10/20], loss:0.0181
epoch [11/20], loss:0.0180
epoch [12/20], loss:0.0179
epoch [13/20], loss:0.0179
epoch [14/20], loss:0.0179
epoch [15/20], loss:0.0178
epoch [16/20], loss:0.0178
epoch [17/20], loss:0.0177
epoch [18/20], loss:0.0177
epoch [19/20], loss:0.0177
epoch [20/20], loss:0.0177
Training has Completed

Forward pass occuring
Forward pass completed
```

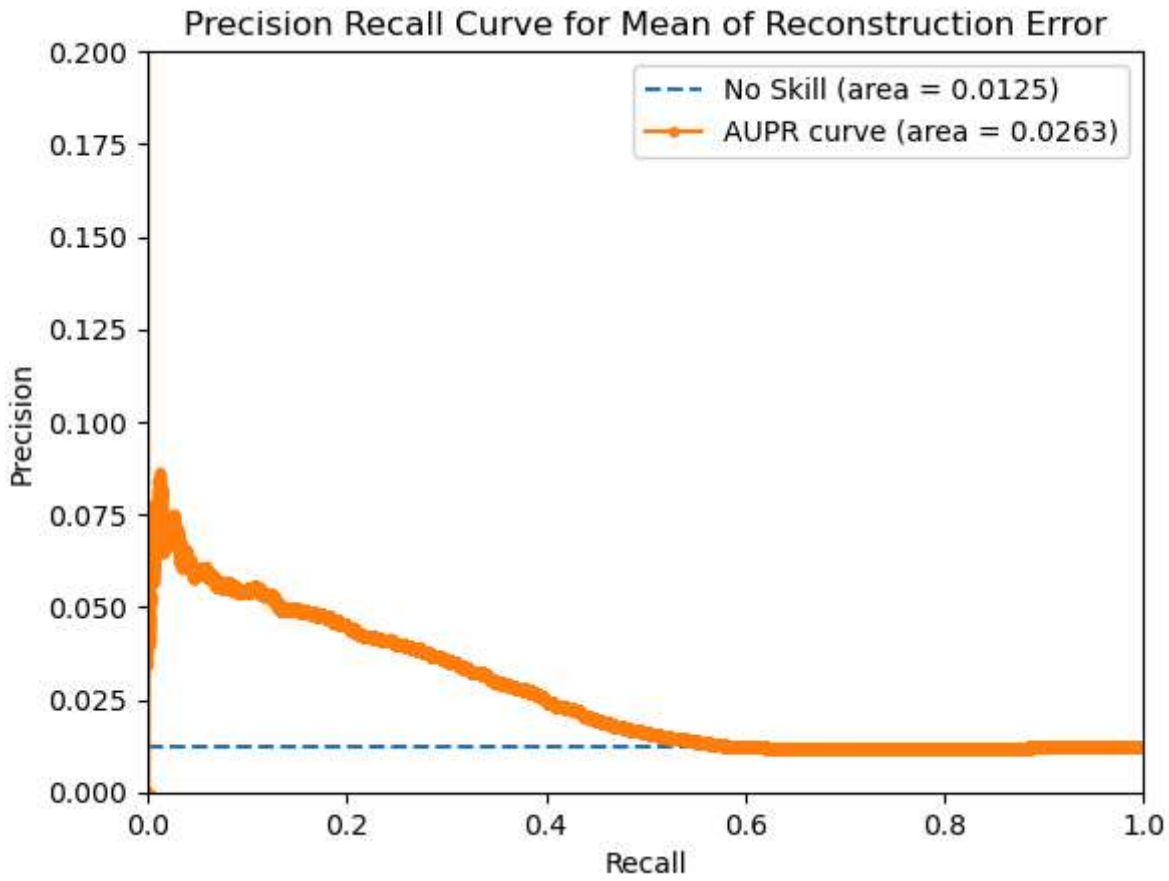
```
MultiModal_Thermal_T3_IP_T_2024-04-16-07-40-39

---------------------------------
STD Global Classification Results
TPR 0.923, FPR 0.618, Precision 0.019, Recall 0.923
tn 71513, fp 115656, fn 182, tp 2192
std_AUROC  0.687
---------------------------------
---------------------------------
Mean Global Classification Results
TPR 0.379, FPR 0.168, Precision 0.028, Recall 0.379
tn 155710, fp 31459, fn 1475, tp 899
mean_AUROC 0.558
---------------------------------

d:\FYP-Human-Fall-Detection\Code\functions.py:250: RuntimeWarning: Mean of em
pty slice
  final_performance_mean = np.nanmean(video_metrics, axis=0)  # get the mean
performance across all videos
c:\Users\sindh\anaconda3\envs\fyp_base_paper_2\lib\site-packages\numpy\lib\na
nfunctions.py:1670: RuntimeWarning: Degrees of freedom <= 0 for slice.
  var = nanvar(a, axis=axis, dtype=dtype, out=out, ddof=ddof,

---------------------------------
STD Global Classification Results
TPR 0.756, FPR 0.392, Precision 0.016, Recall 0.756
tn 114226, fp 73714, fn 391, tp 1212
std_AUROC  0.737
---------------------------------
---------------------------------
Mean Global Classification Results
TPR 0.602, FPR 0.249, Precision 0.020, Recall 0.602
tn 141081, fp 46859, fn 638, tp 965
mean_AUROC 0.706
---------------------------------
```

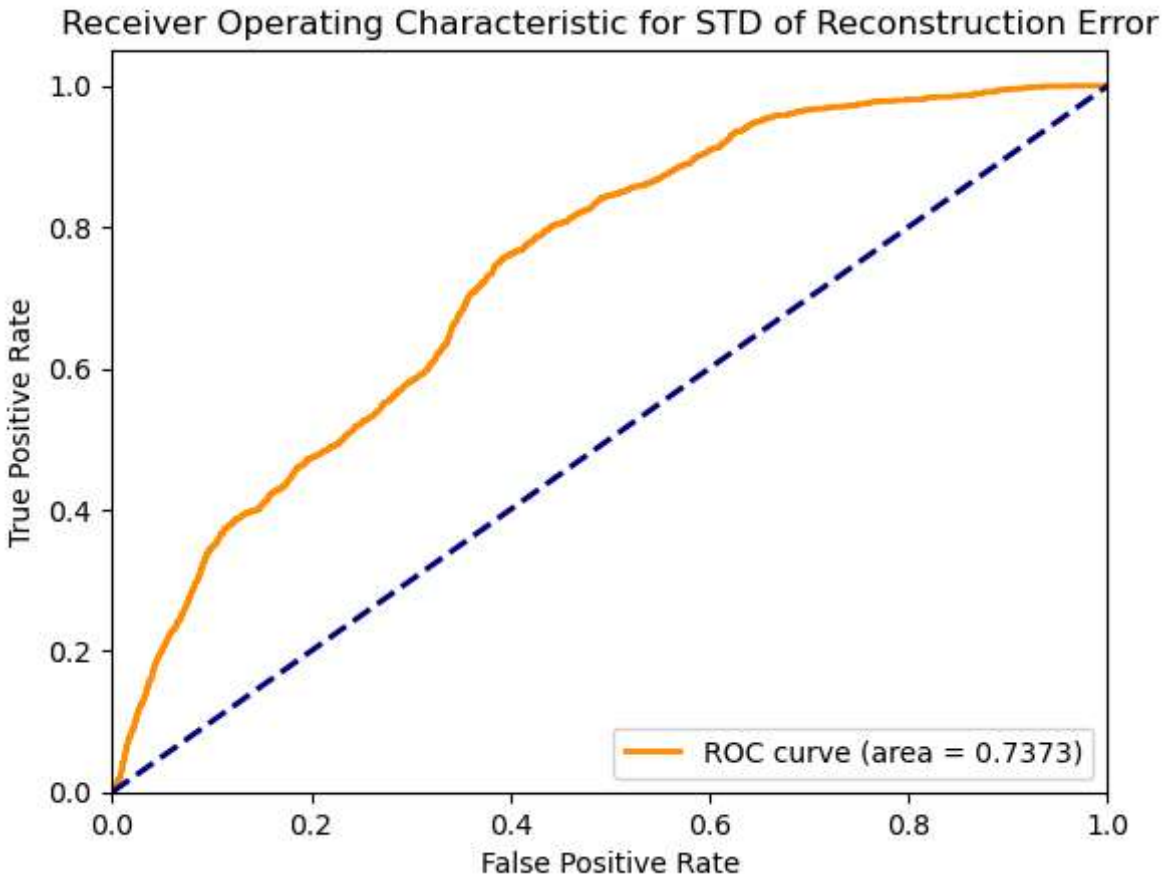
```
c:\Users\sindh\anaconda3\envs\fyp_base_paper_2\lib\site-packages\sklearn\metr
ics\_ranking.py:1132: UndefinedMetricWarning: No positive samples in y_true,
true positive value should be meaningless
  warnings.warn(
c:\Users\sindh\anaconda3\envs\fyp_base_paper_2\lib\site-packages\sklearn\metr
ics\_ranking.py:979: UserWarning: No positive class found in y_true, recall i
s set to one for all thresholds.
  warnings.warn(
c:\Users\sindh\anaconda3\envs\fyp_base_paper_2\lib\site-packages\sklearn\metr
ics\_ranking.py:1132: UndefinedMetricWarning: No positive samples in y_true,
true positive value should be meaningless
  warnings.warn(
c:\Users\sindh\anaconda3\envs\fyp_base_paper_2\lib\site-packages\sklearn\metr
ics\_ranking.py:979: UserWarning: No positive class found in y_true, recall i
s set to one for all thresholds.
  warnings.warn(
d:\FYP-Human-Fall-Detection\Code\functions.py:250: RuntimeWarning: Mean of em
pty slice
  final_performance_mean = np.nanmean(video_metrics, axis=0)  # get the mean
performance across all videos
c:\Users\sindh\anaconda3\envs\fyp_base_paper_2\lib\site-packages\numpy\lib\na
nfunctions.py:1670: RuntimeWarning: Degrees of freedom <= 0 for slice.
  var = nanvar(a, axis=axis, dtype=dtype, out=out, ddof=ddof,

---------------------------------
STD Global Classification Results
TPR 0.754, FPR 0.451, Precision 0.021, Recall 0.754
tn 102769, fp 84400, fn 585, tp 1789
std_AUROC  0.687
---------------------------------
---------------------------------
Mean Global Classification Results
TPR 0.730, FPR 0.336, Precision 0.027, Recall 0.730
tn 124242, fp 62927, fn 641, tp 1733
mean_AUROC 0.746
---------------------------------

d:\FYP-Human-Fall-Detection\Code\functions.py:250: RuntimeWarning: Mean of em
pty slice
  final_performance_mean = np.nanmean(video_metrics, axis=0)  # get the mean
performance across all videos
c:\Users\sindh\anaconda3\envs\fyp_base_paper_2\lib\site-packages\numpy\lib\na
nfunctions.py:1670: RuntimeWarning: Degrees of freedom <= 0 for slice.
  var = nanvar(a, axis=axis, dtype=dtype, out=out, ddof=ddof,

()
```

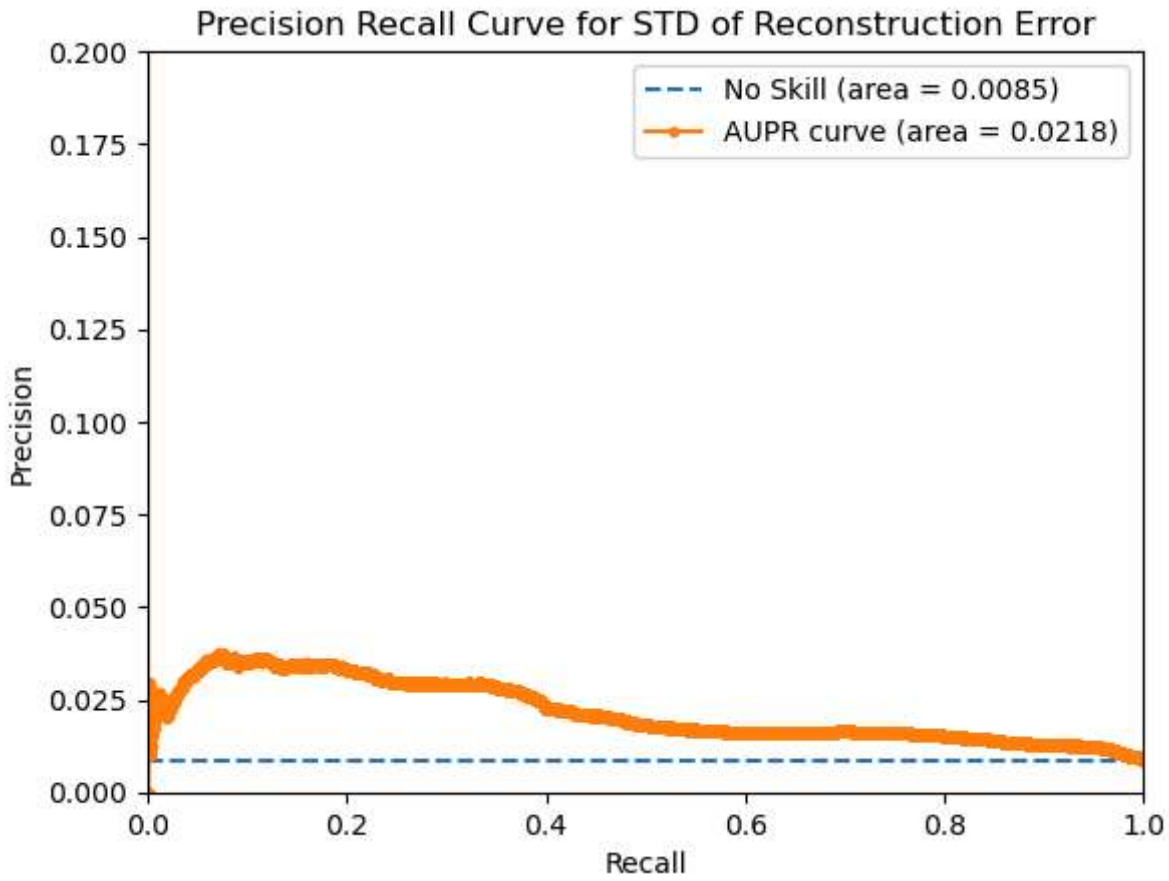

Receiver Operating Characteristic for STD of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.6868)
0.0
0.2
0.4
0.6
0.8
1.0

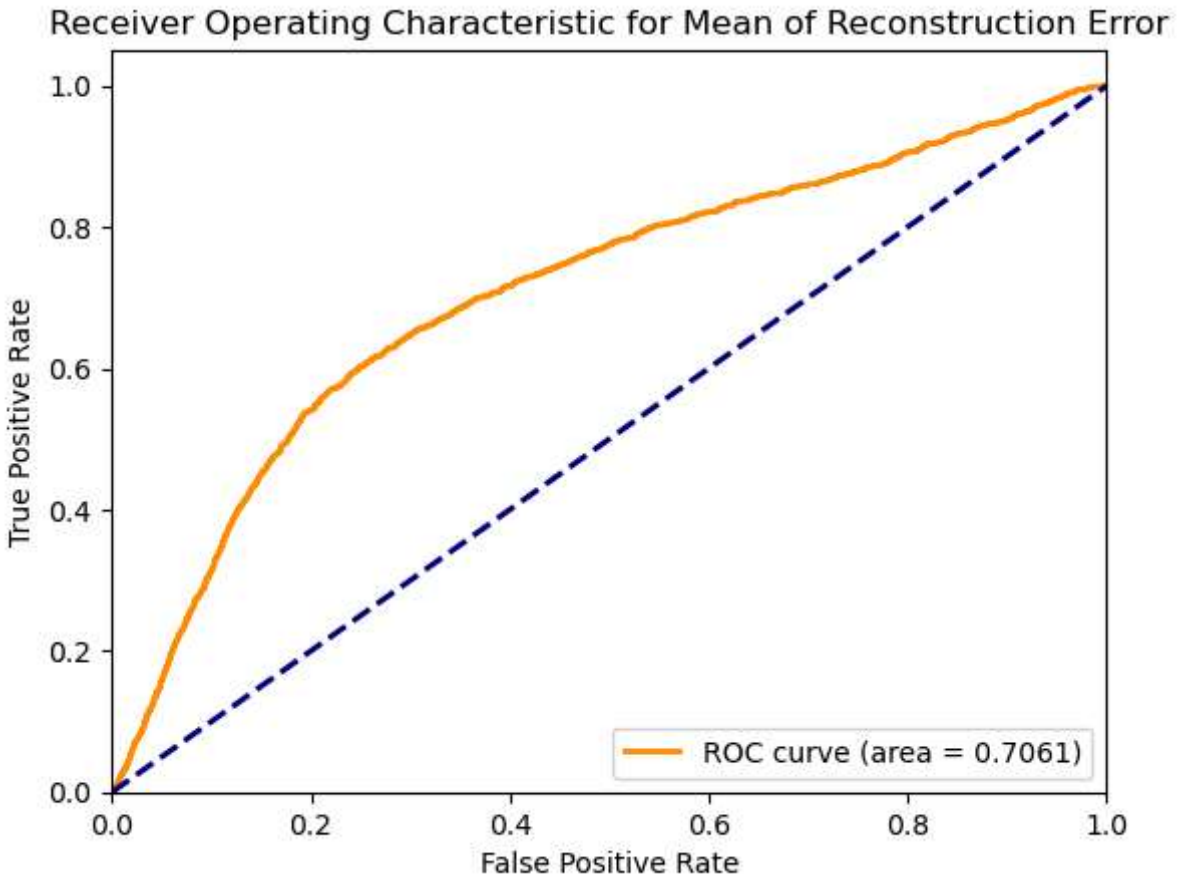

Precision Recall Curve for STD of Reconstruction Error
Precision
Recall
No Skill (area = 0.0125)
AUPR curve (area = 0.0219)
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0.200
0.0
0.2
0.4
0.6
0.8
1.0

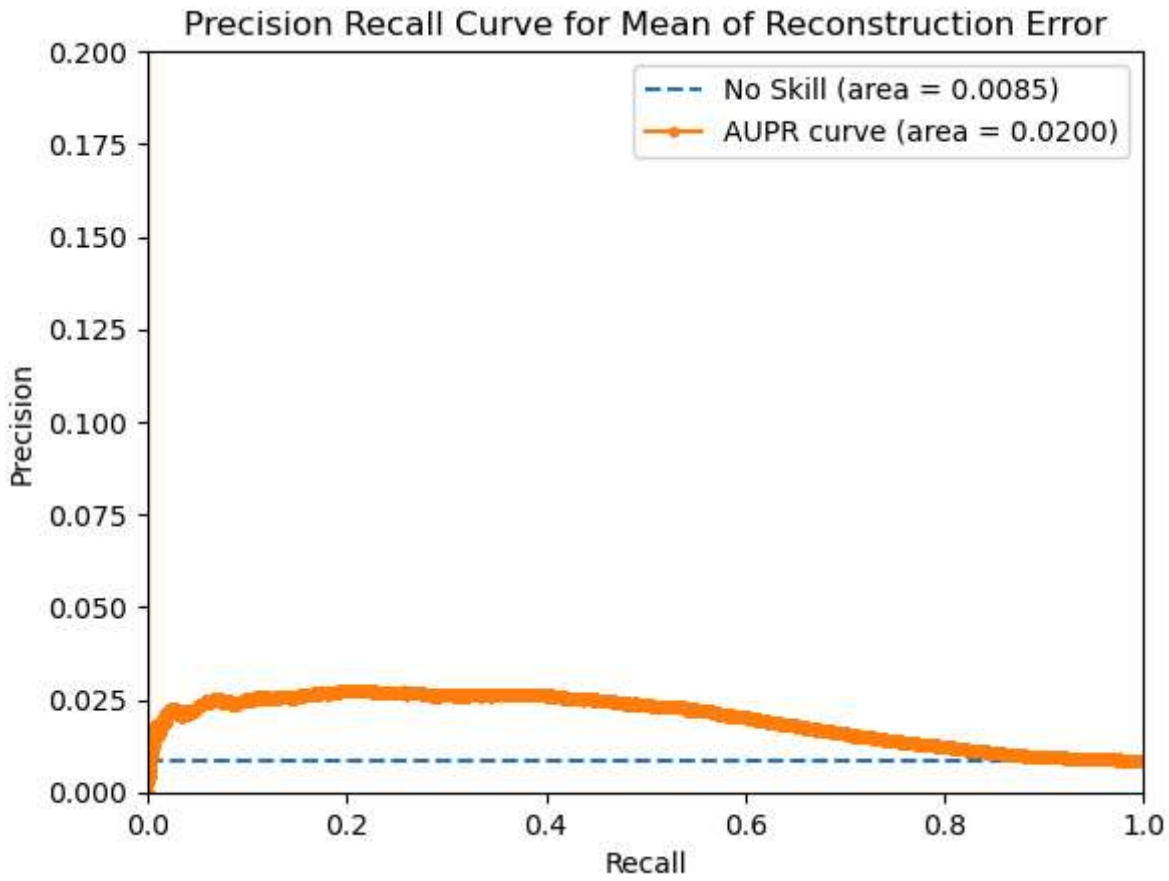

Receiver Operating Characteristic for Mean of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.5580)
0.0
0.2
0.4
0.6
0.8
1.0

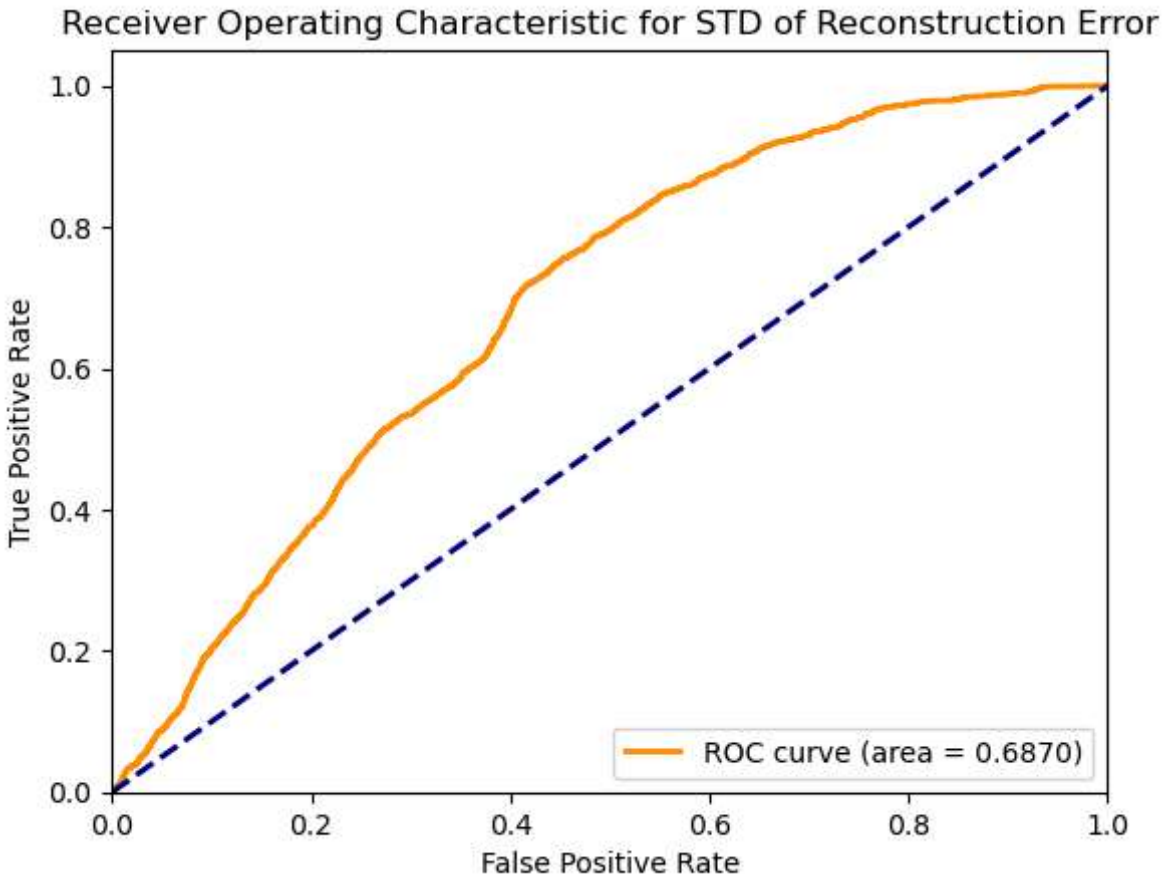

Precision Recall Curve for Mean of Reconstruction Error
Precision
Recall
No Skill (area = 0.0125)
AUPR curve (area = 0.0263)
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0.200
0.0
0.2
0.4
0.6
0.8
1.0

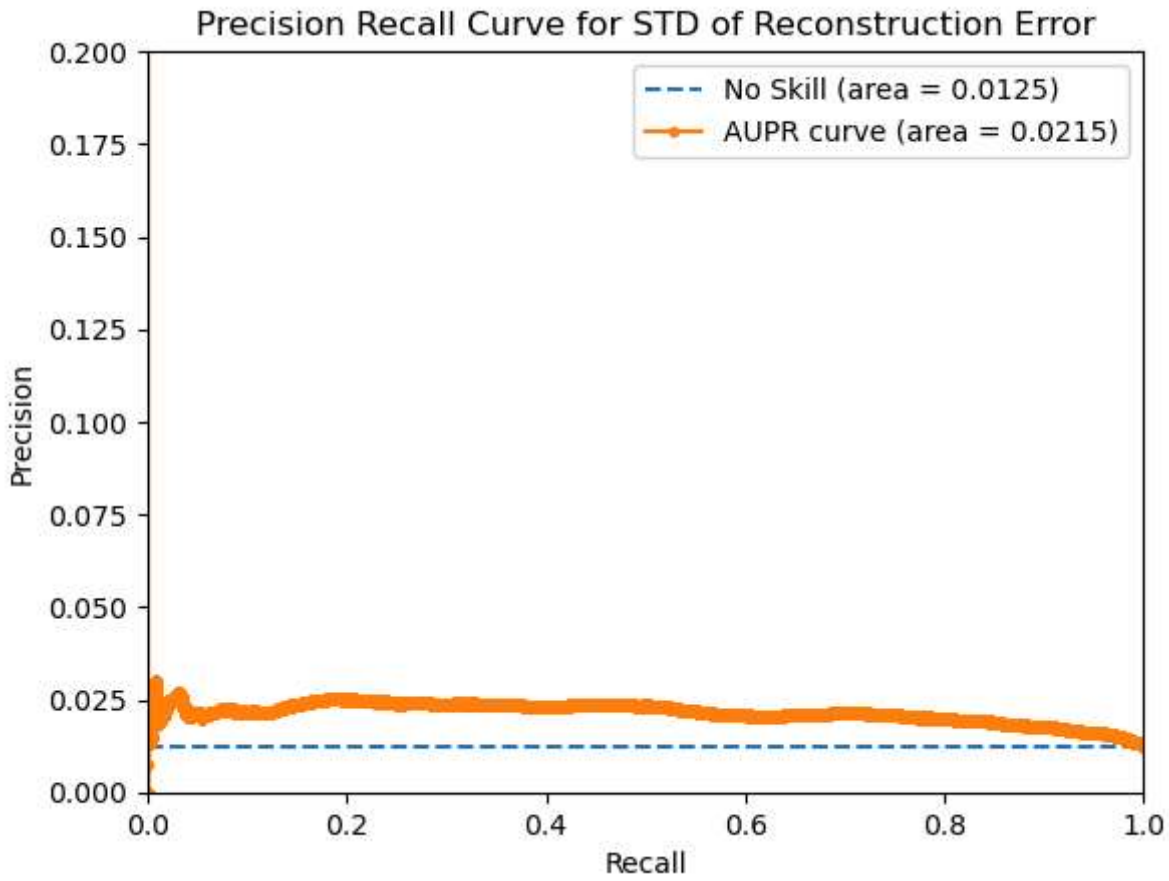

Receiver Operating Characteristic for STD of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.7373)
0.0
0.2
0.4
0.6
0.8
1.0

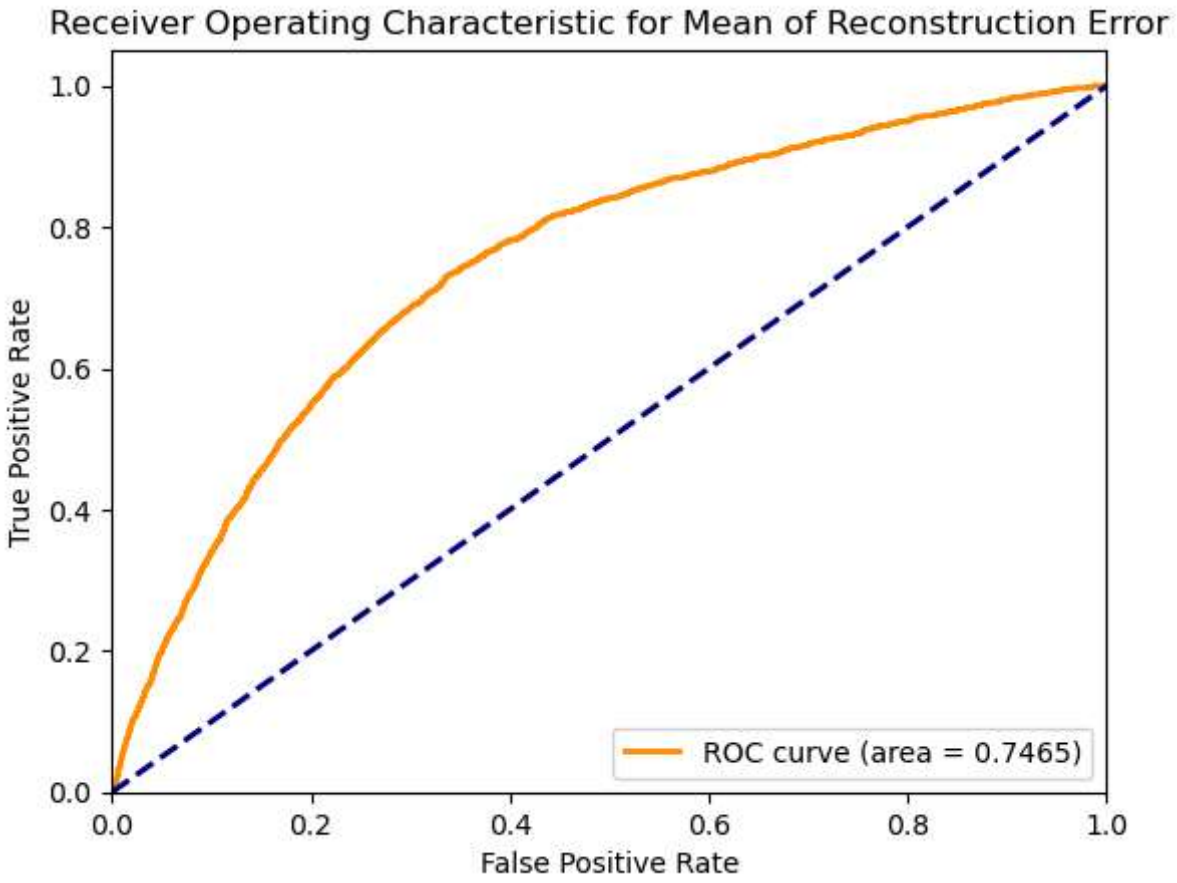

Precision Recall Curve for STD of Reconstruction Error
Precision
Recall
No Skill (area = 0.0085)
AUPR curve (area = 0.0218)
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0.200
0.0
0.2
0.4
0.6
0.8
1.0

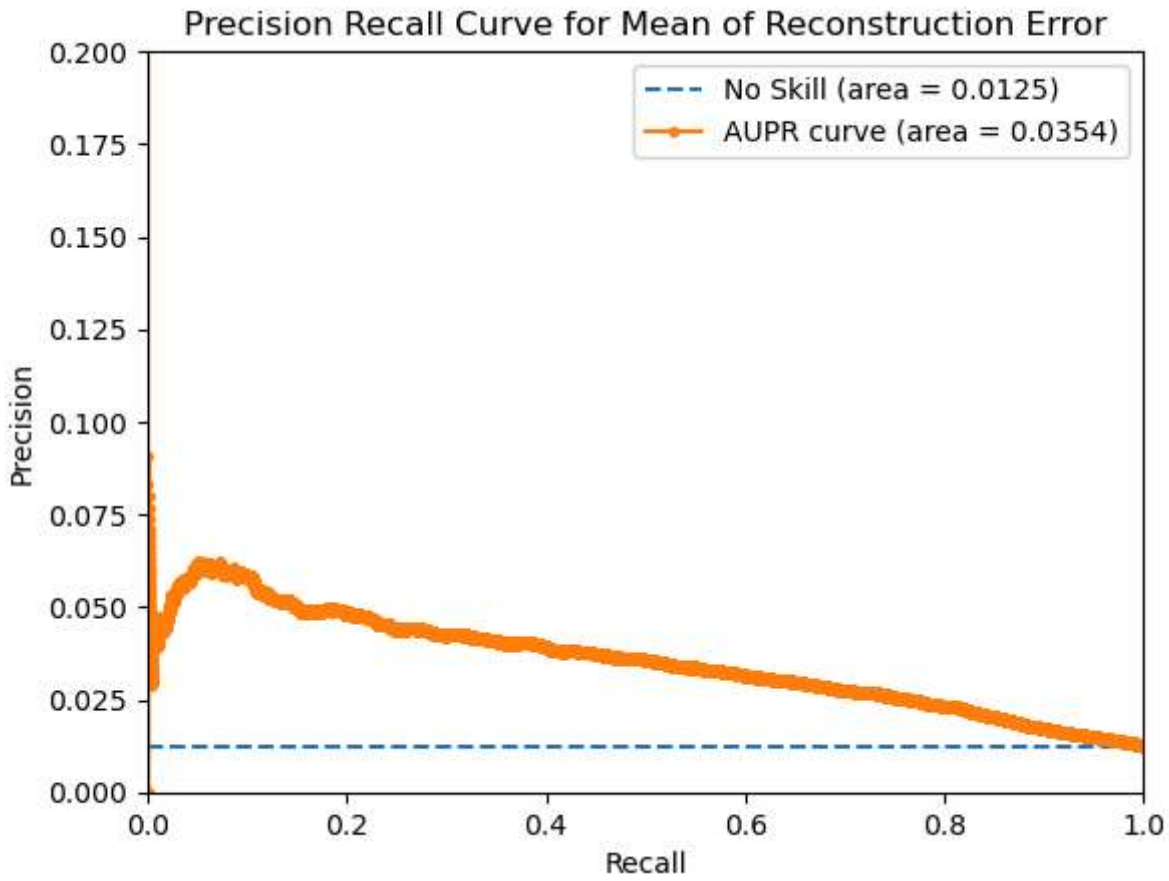

Receiver Operating Characteristic for Mean of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.7061)
0.0
0.2
0.4
0.6
0.8
1.0


Precision Recall Curve for Mean of Reconstruction Error
Precision
Recall
No Skill (area = 0.0085)
AUPR curve (area = 0.0200)
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0.200
0.0
0.2
0.4
0.6
0.8
1.0


Receiver Operating Characteristic for STD of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.6870)
0.0
0.2
0.4
0.6
0.8
1.0


Precision Recall Curve for STD of Reconstruction Error
Precision
Recall
No Skill (area = 0.0125)
AUPR curve (area = 0.0215)
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0.200
0.0
0.2
0.4
0.6
0.8
1.0


Receiver Operating Characteristic for Mean of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.7465)
0.0
0.2
0.4
0.6
0.8
1.0


Precision Recall Curve for Mean of Reconstruction Error
Precision
Recall
No Skill (area = 0.0125)
AUPR curve (area = 0.0354)
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0.200
0.0
0.2
0.4
0.6
0.8
1.0