```
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 - LateAddition_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:0.0070
epoch [2/20], loss:0.0051
epoch [3/20], loss:0.0041
epoch [4/20], loss:0.0035
epoch [5/20], loss:0.0032
epoch [6/20], loss:0.0029
epoch [7/20], loss:0.0028
epoch [8/20], loss:0.0027
epoch [9/20], loss:0.0026
epoch [10/20], loss:0.0025
epoch [11/20], loss:0.0024
epoch [12/20], loss:0.0023
epoch [13/20], loss:0.0022
epoch [14/20], loss:0.0021
epoch [15/20], loss:0.0021
epoch [16/20], loss:0.0021
epoch [17/20], loss:0.0020
epoch [18/20], loss:0.0020
epoch [19/20], loss:0.0019
epoch [20/20], loss:0.0020
Training has Completed

Forward pass occuring
Forward pass completed
```

```
MultiModal_Thermal_T3_IP_T_2024-04-15-22-40-52

---------------------------------
STD Global Classification Results
TPR 0.908, FPR 0.470, Precision 0.024, Recall 0.908
tn 99230, fp 87939, fn 218, tp 2156
std_AUROC  0.762
---------------------------------
---------------------------------
Mean Global Classification Results
TPR 0.715, FPR 0.248, Precision 0.035, Recall 0.715
tn 140829, fp 46340, fn 676, tp 1698
mean_AUROC 0.781
---------------------------------

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 0.811, FPR 0.235, Precision 0.029, Recall 0.811
tn 143720, fp 44220, fn 303, tp 1300
std_AUROC  0.875
---------------------------------
---------------------------------
Mean Global Classification Results
TPR 0.905, FPR 0.242, Precision 0.031, Recall 0.905
tn 142431, fp 45509, fn 152, tp 1451
mean_AUROC 0.895
---------------------------------
```

```
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
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  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 0.770, FPR 0.343, Precision 0.028, Recall 0.770
tn 122890, fp 64279, fn 546, tp 1828
std_AUROC  0.750
---------------------------------
---------------------------------
Mean Global Classification Results
TPR 0.719, FPR 0.351, Precision 0.025, Recall 0.719
tn 121402, fp 65767, fn 667, tp 1707
mean_AUROC 0.739
---------------------------------

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,

()
```
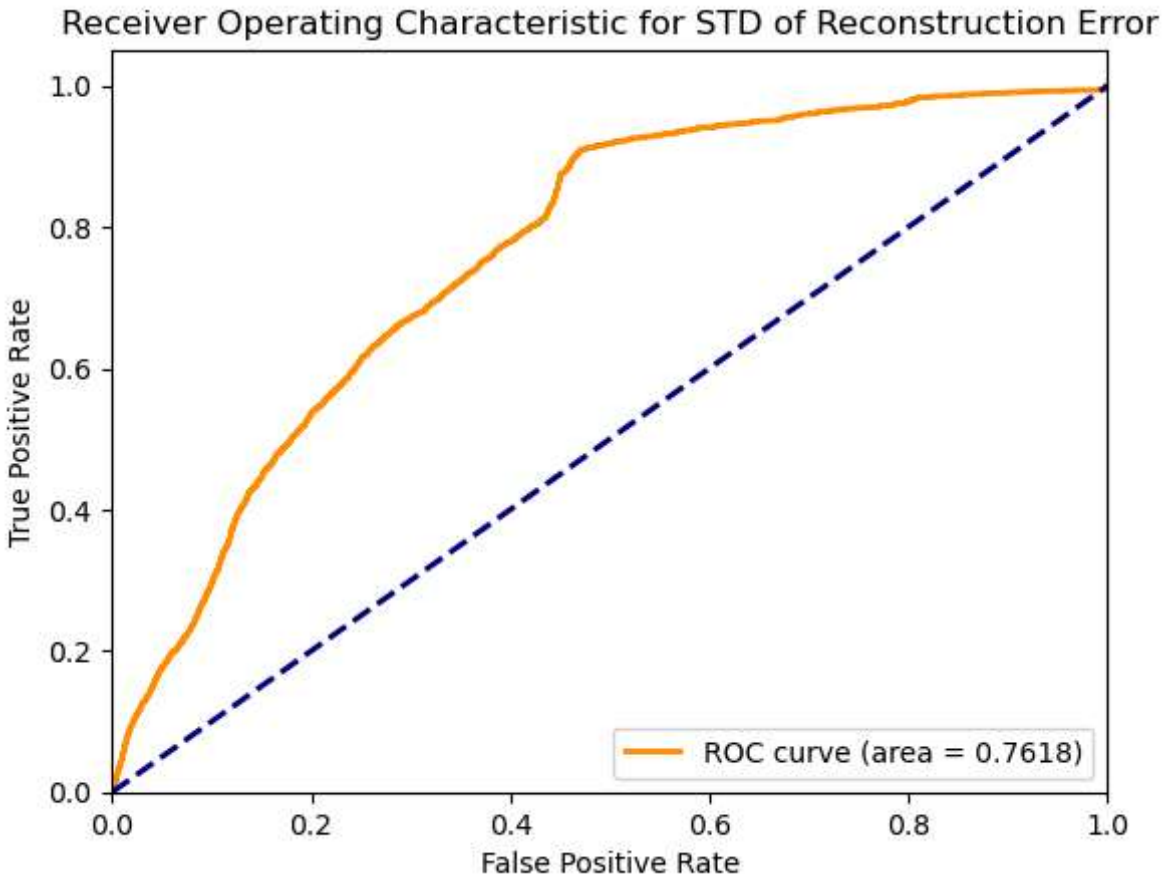
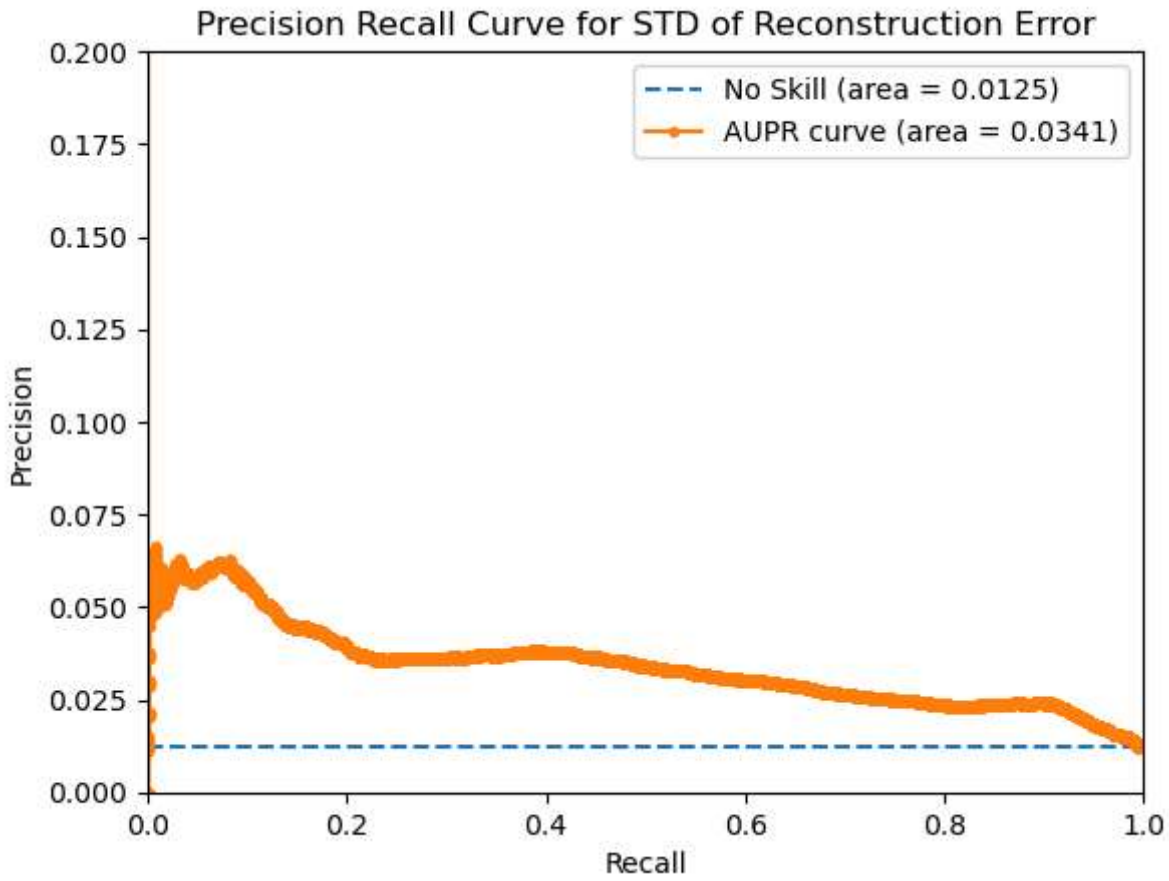
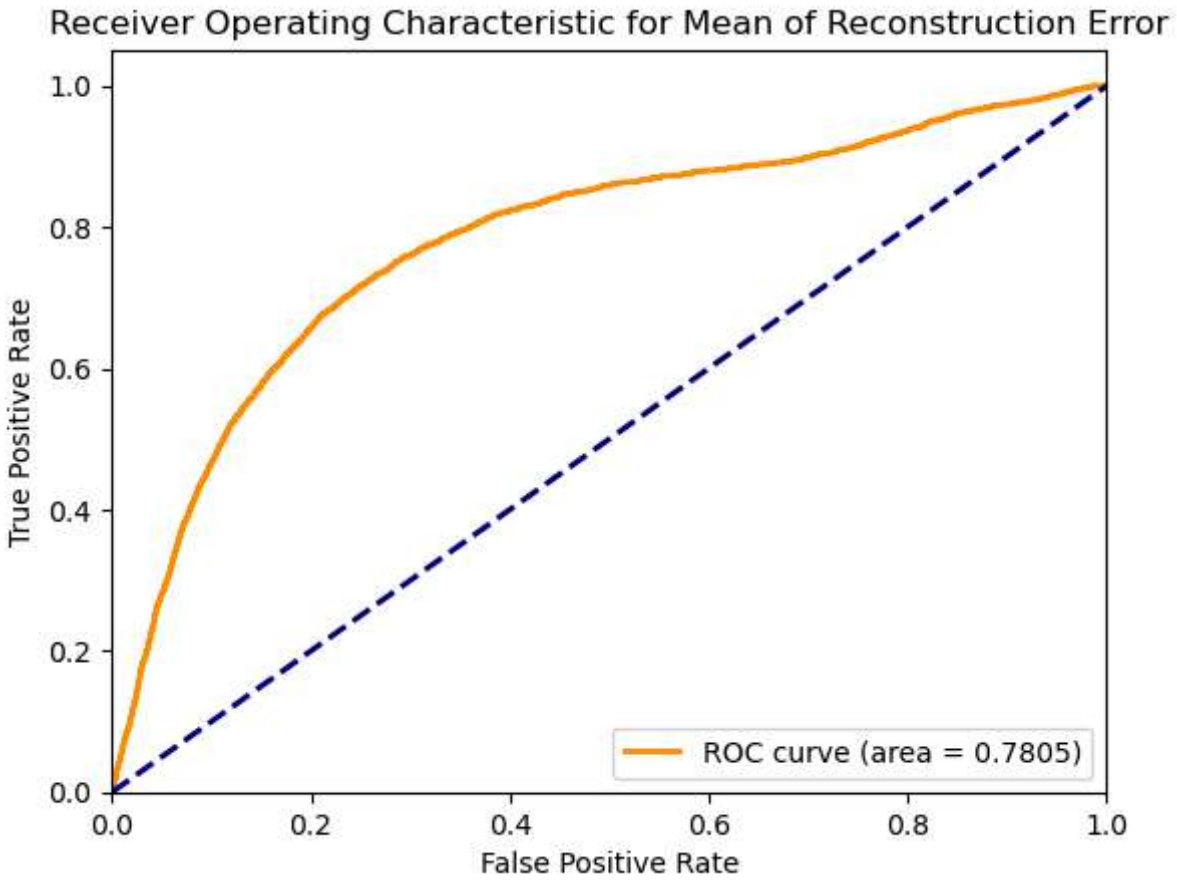
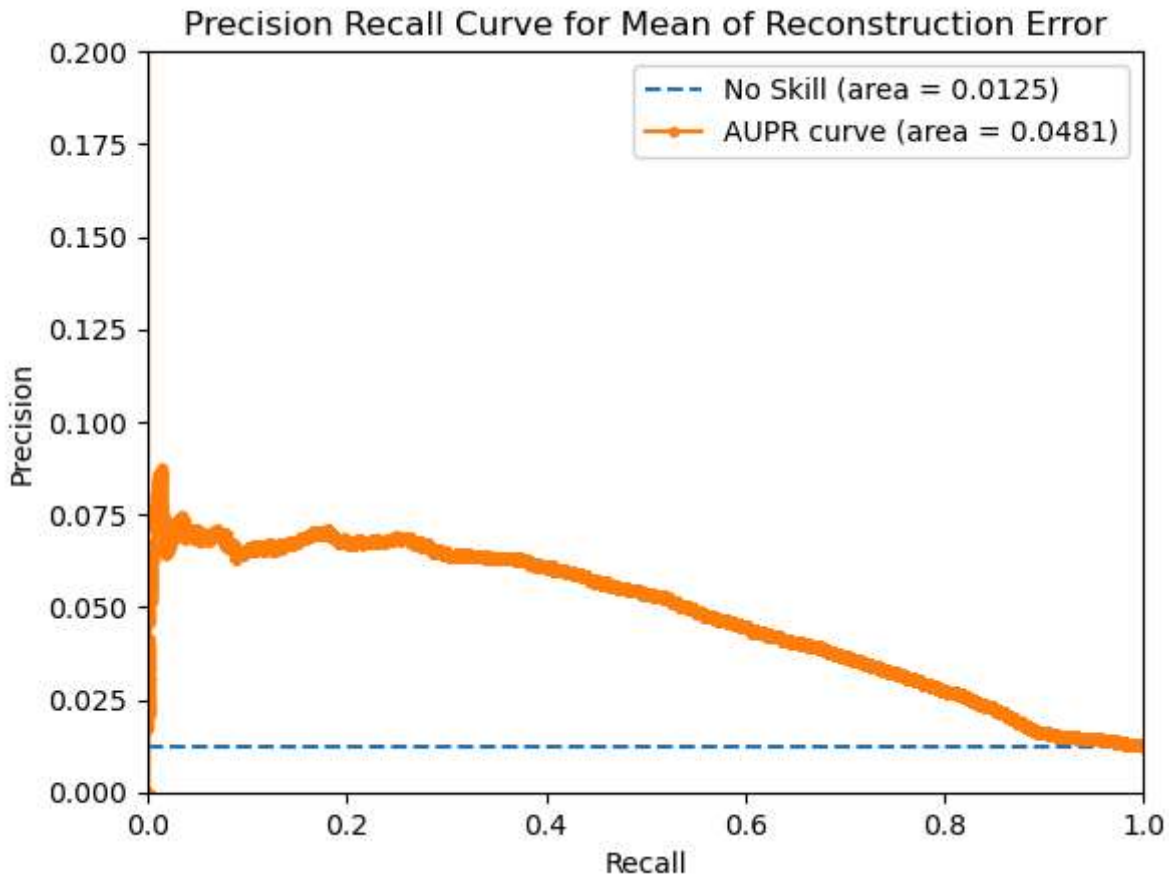
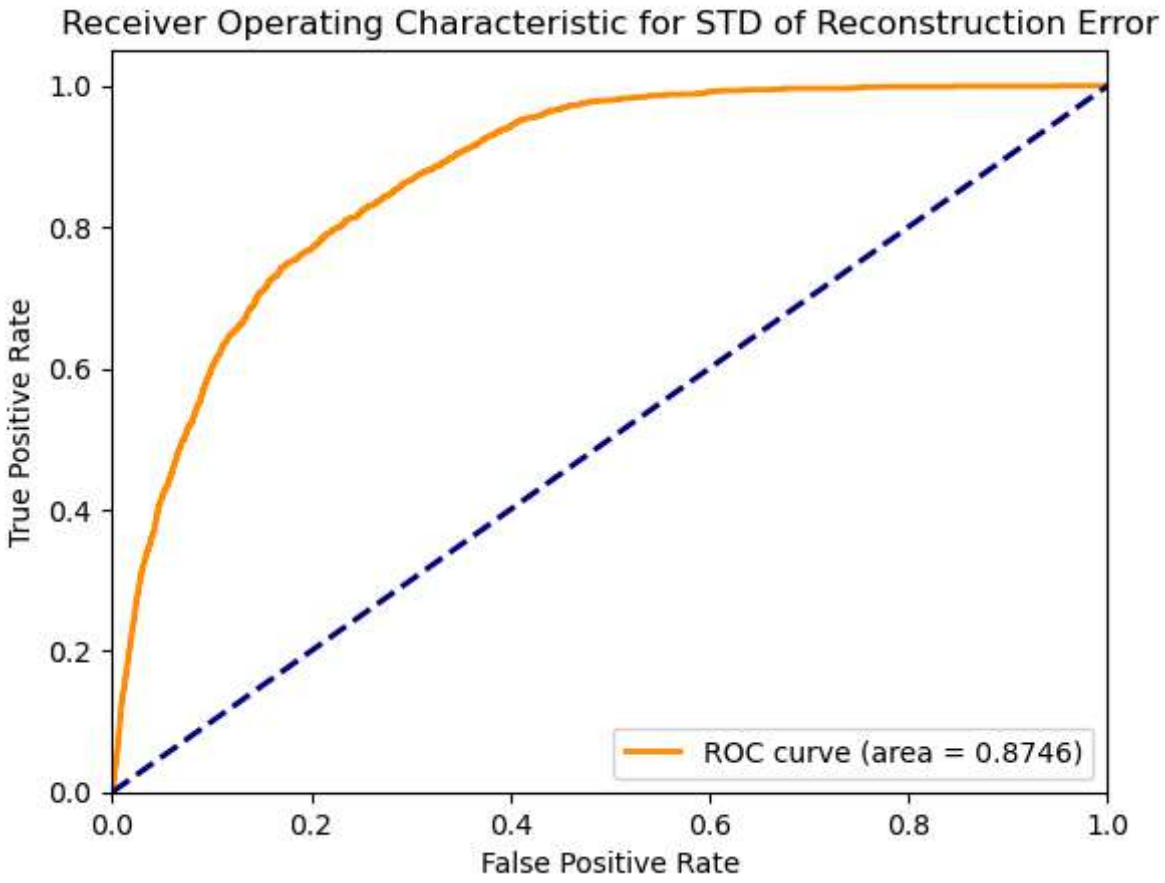
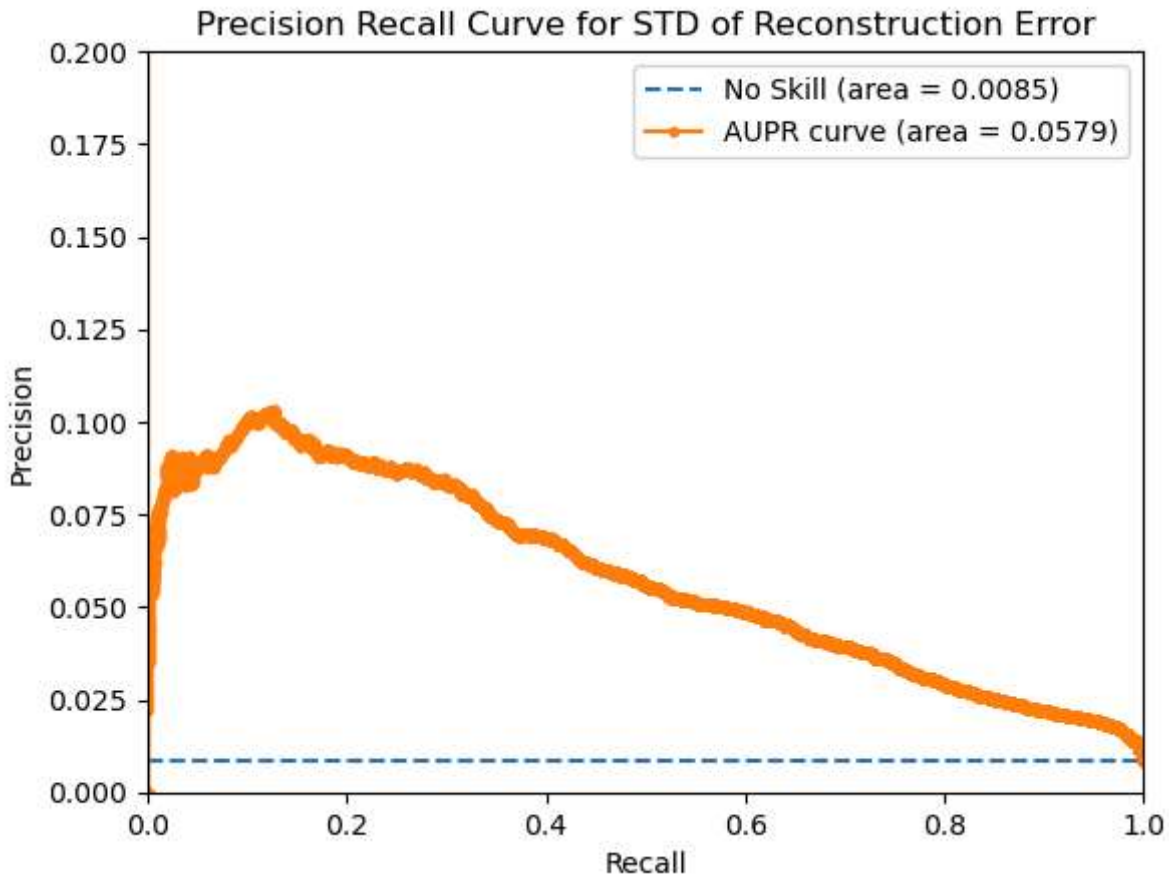


Receiver Operating Characteristic for STD of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.7618)
0.0
0.2
0.4
0.6
0.8
1.0

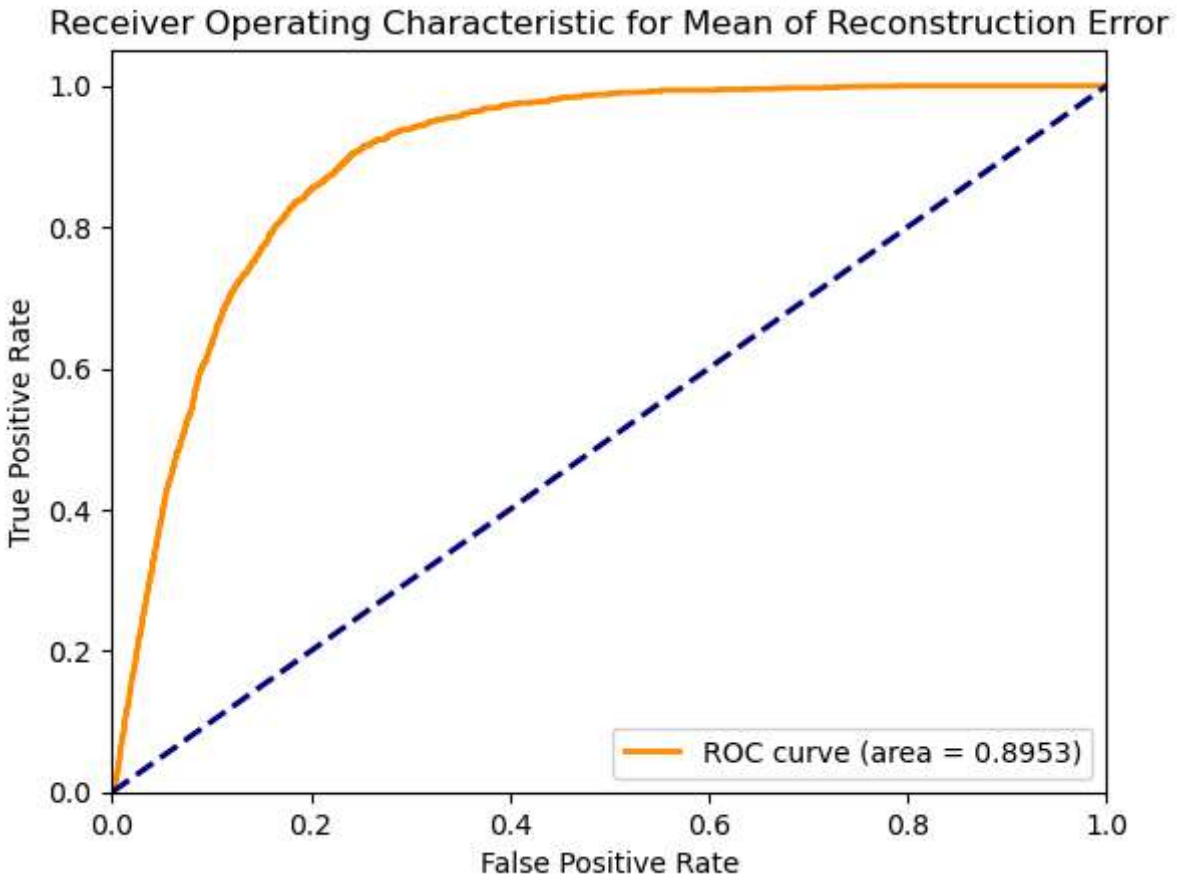

Precision Recall Curve for STD of Reconstruction Error
Precision
Recall
No Skill (area = 0.0125)
AUPR curve (area = 0.0341)
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0.200
0.0
0.2
0.4
0.6
0.8
1.0

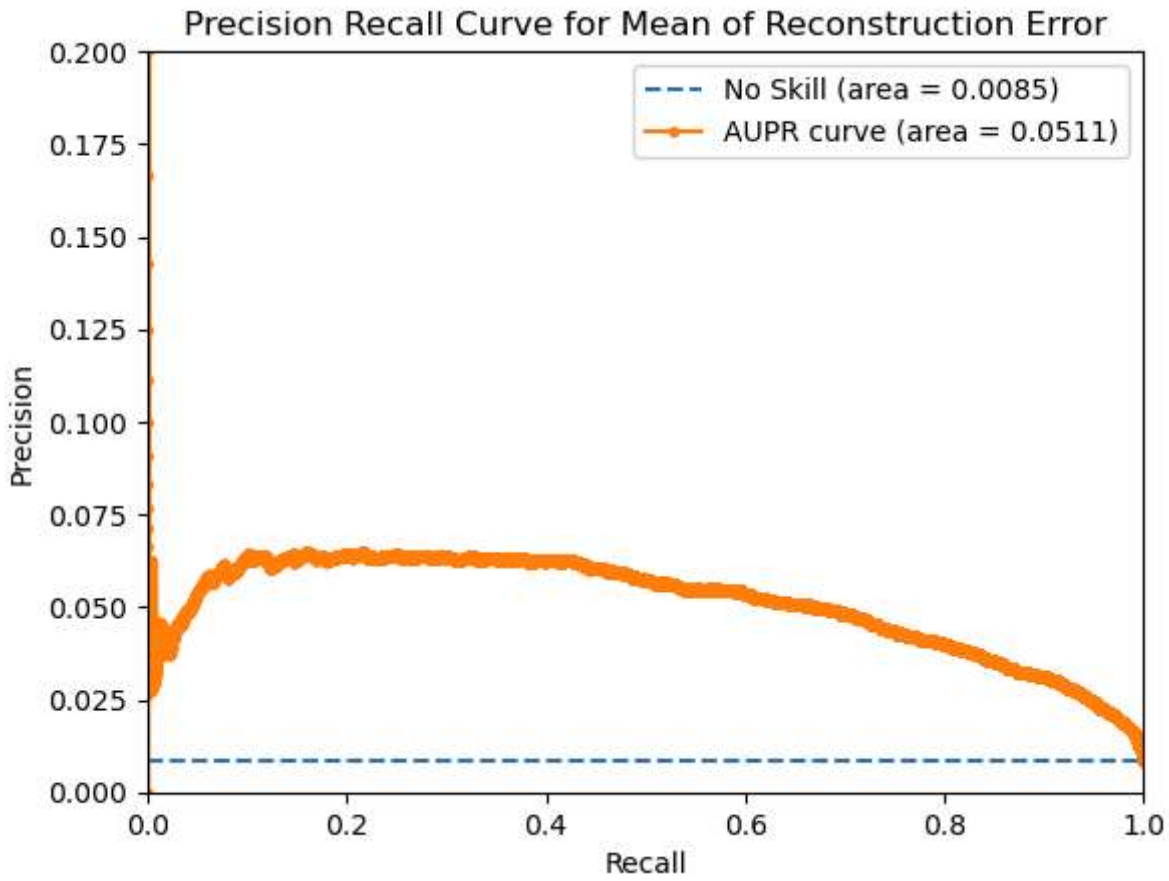

Receiver Operating Characteristic for Mean of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.7805)
0.0
0.2
0.4
0.6
0.8
1.0

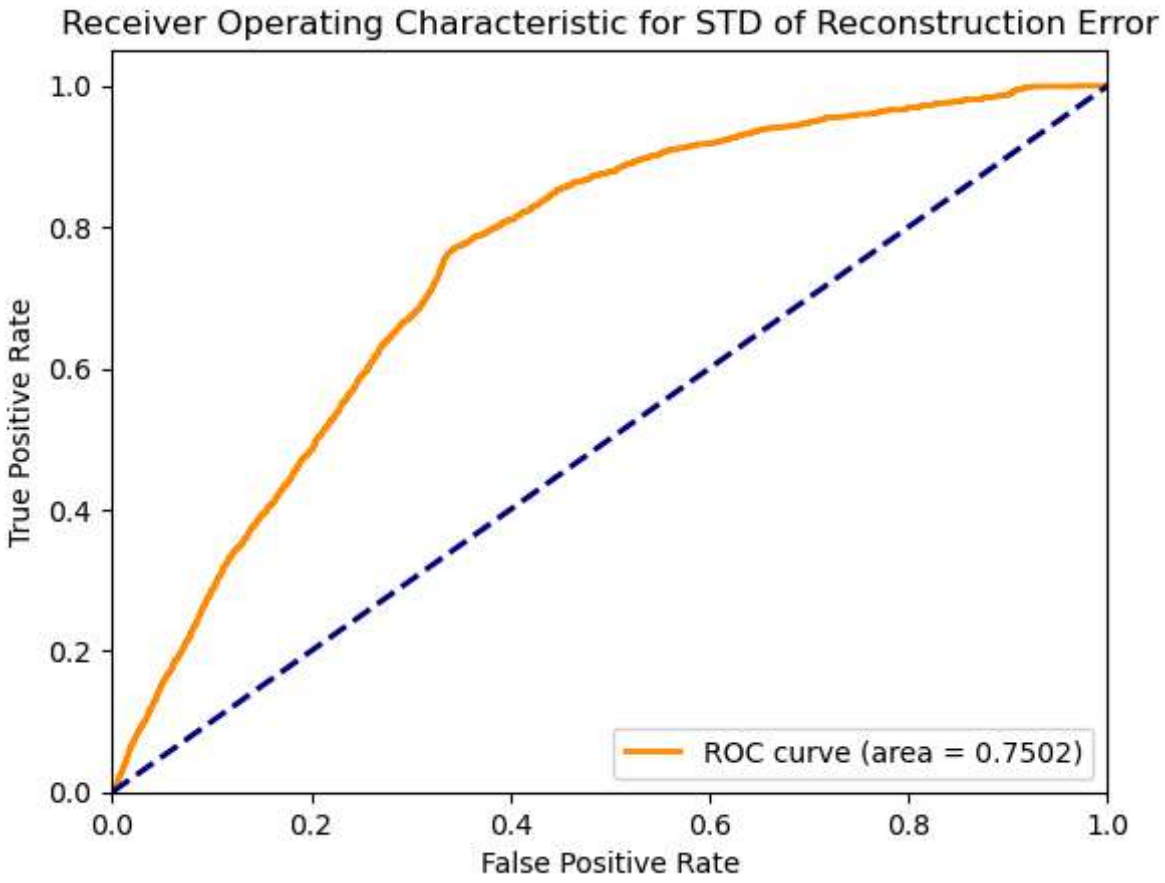

Precision Recall Curve for Mean of Reconstruction Error
Precision
Recall
No Skill (area = 0.0125)
AUPR curve (area = 0.0481)
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0.200
0.0
0.2
0.4
0.6
0.8
1.0

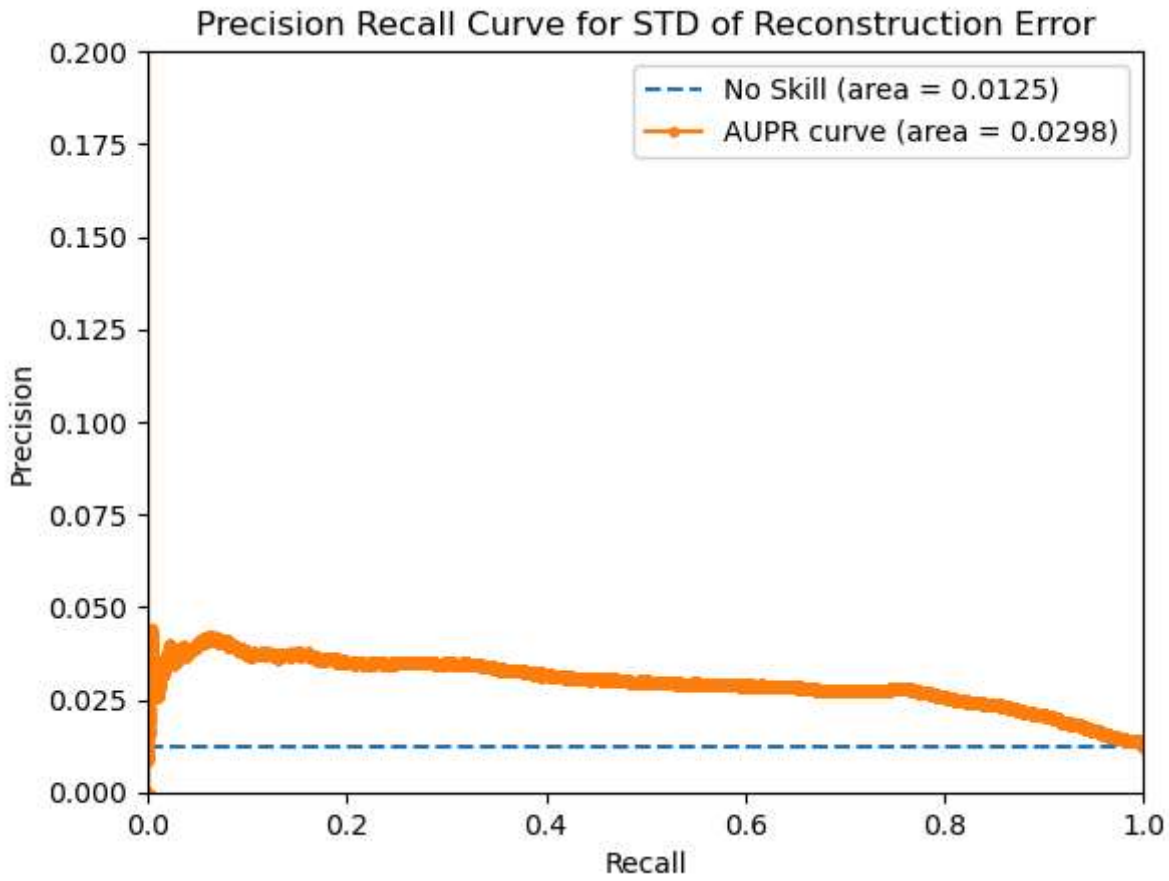

Receiver Operating Characteristic for STD of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.8746)
0.0
0.2
0.4
0.6
0.8
1.0

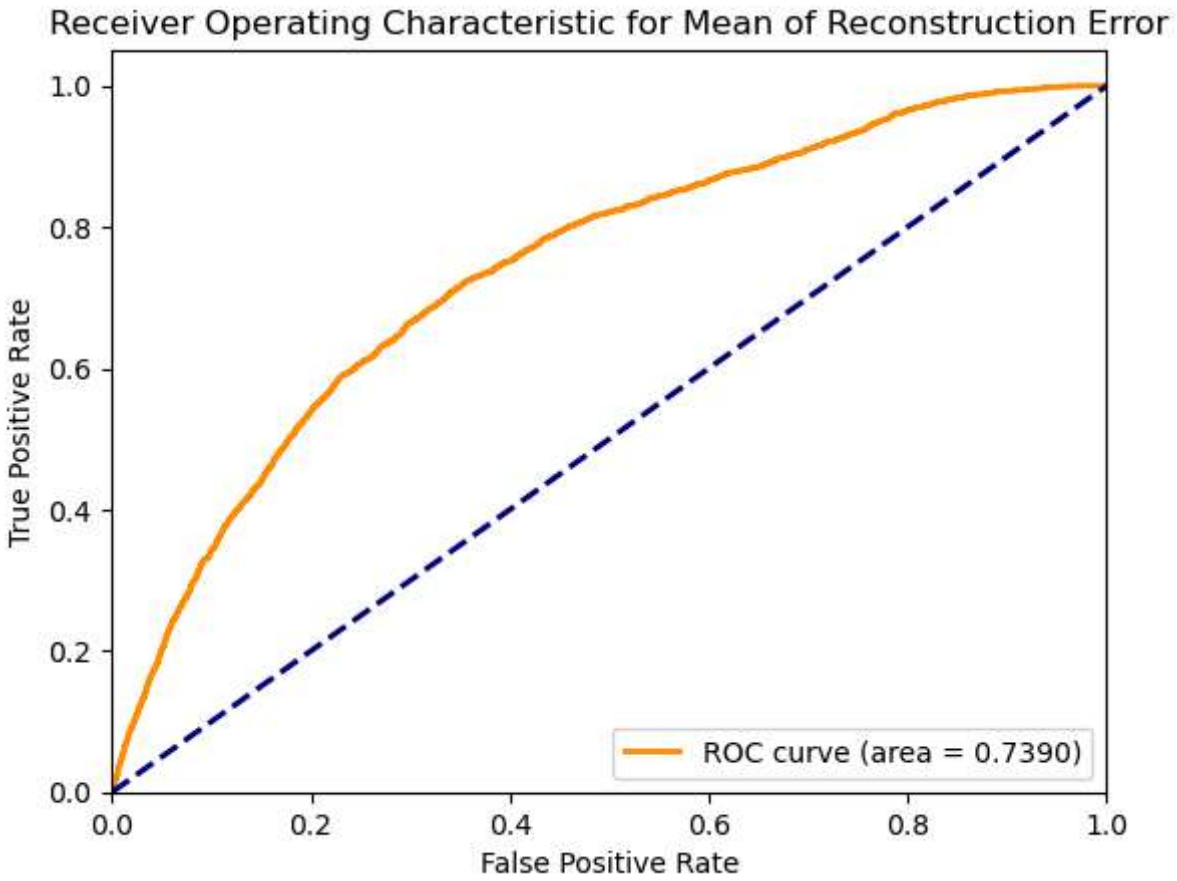

Precision Recall Curve for STD of Reconstruction Error
Precision
Recall
No Skill (area = 0.0085)
AUPR curve (area = 0.0579)
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0.200
0.0
0.2
0.4
0.6
0.8
1.0

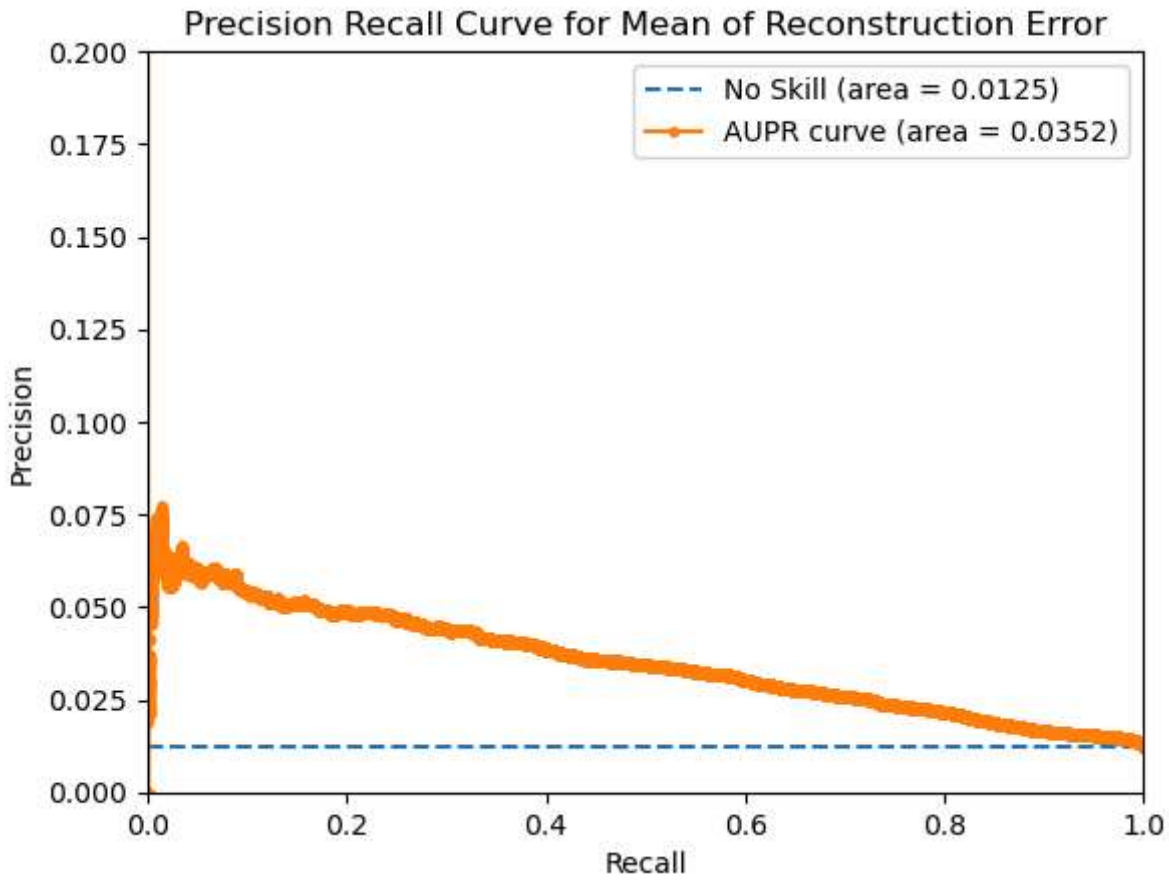

Receiver Operating Characteristic for Mean of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.8953)
0.0
0.2
0.4
0.6
0.8
1.0


Precision Recall Curve for Mean of Reconstruction Error
Precision
Recall
No Skill (area = 0.0085)
AUPR curve (area = 0.0511)
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 = 0.7502)
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 = 0.0298)
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 = 0.7390)
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 = 0.0352)
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