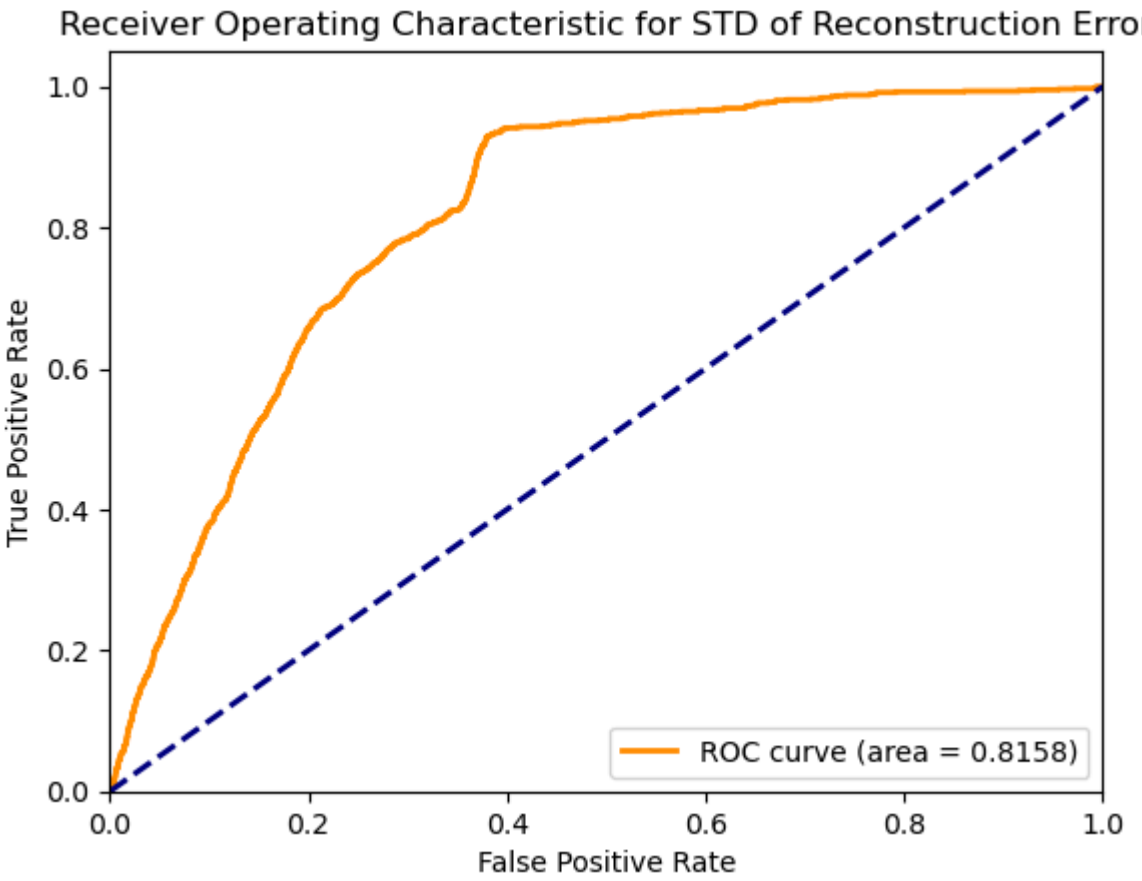
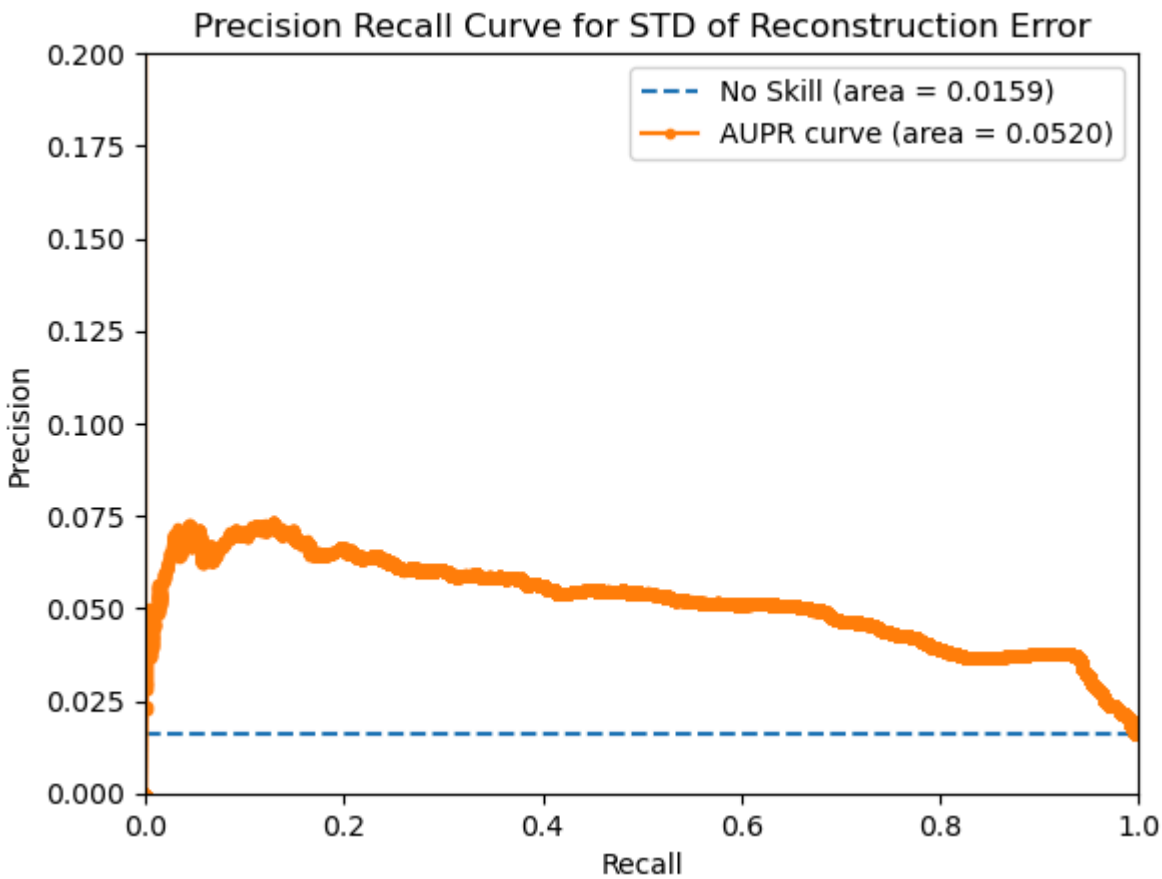
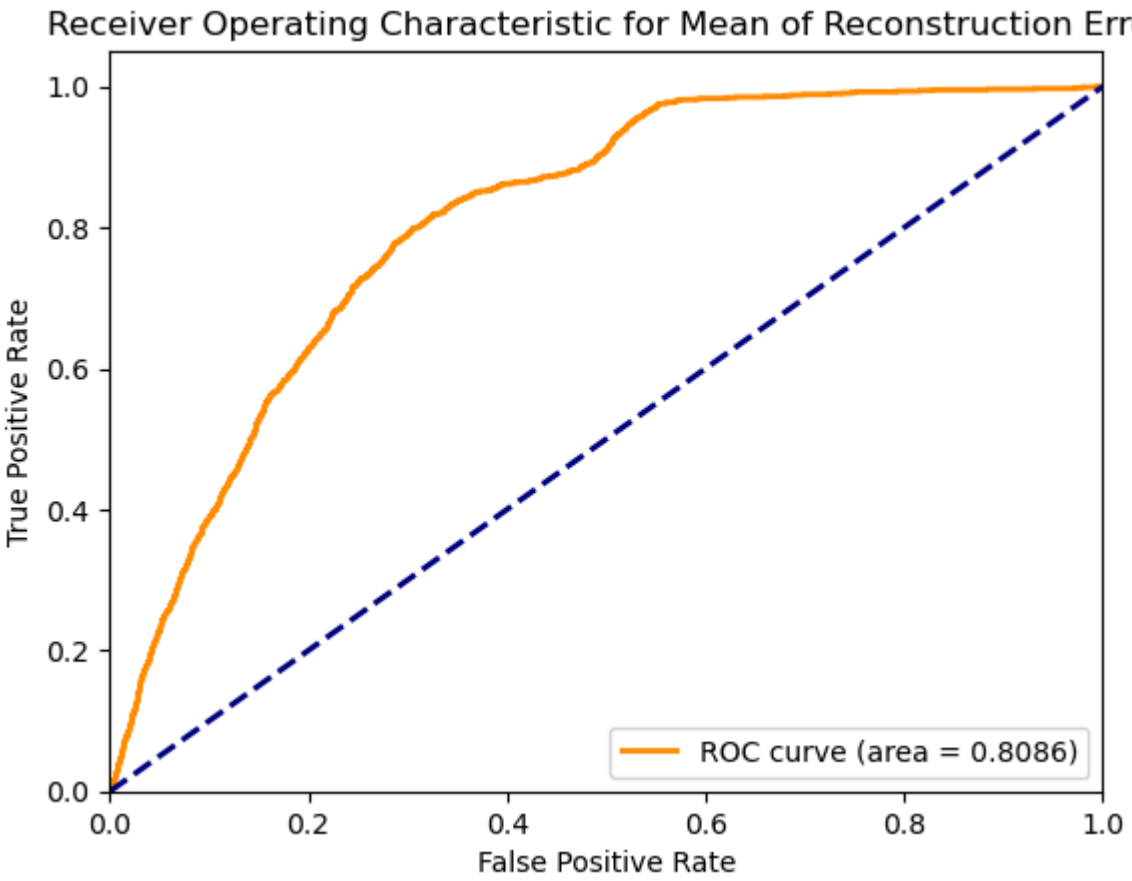
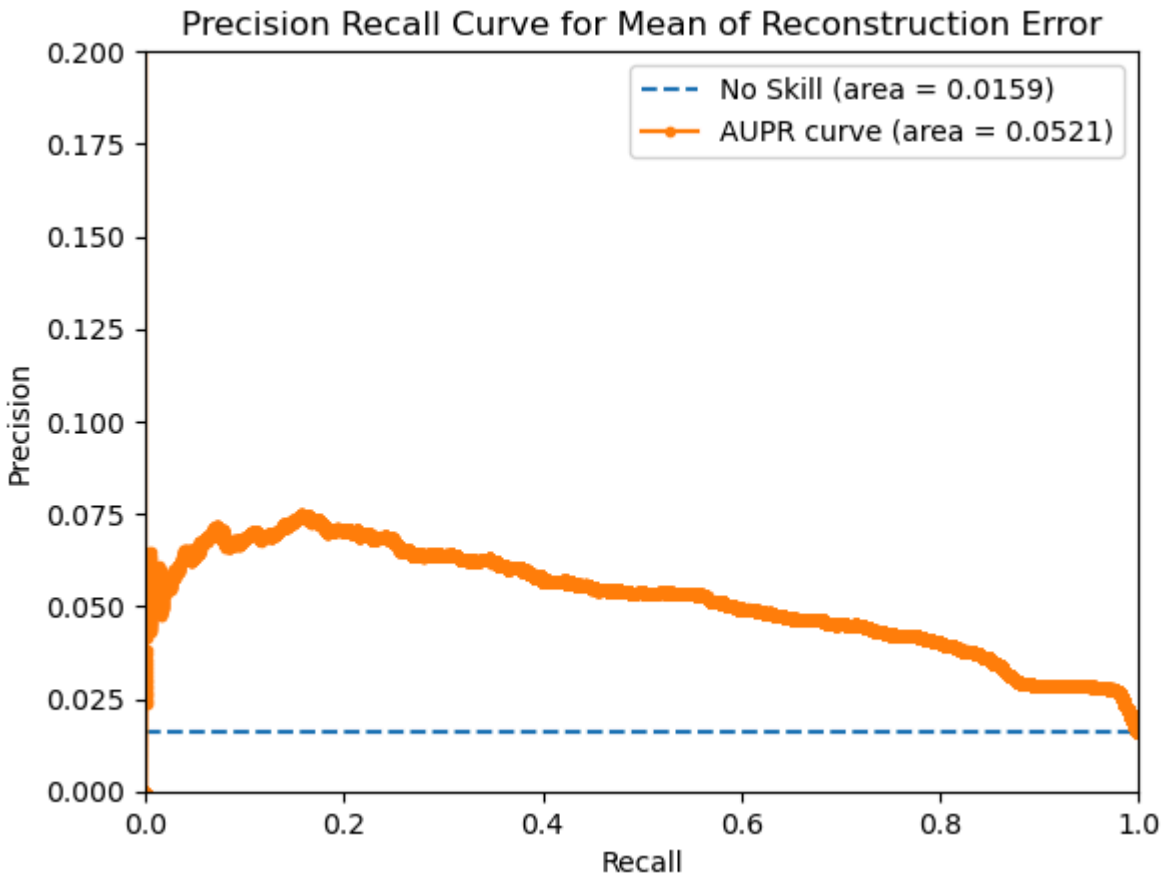
```
Modality 1 - Thermal
Non Falls - 48, Falls - 173

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

Train Dataloader - 48
Test Dataloader - 173

Device Used - cuda

Model Used - MultiModal_3DCAE
Feature Extraction - False
Data Augmentation - False
Spatial Temporal Loss - False

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

Training has Begun
epoch [1/20], loss:0.0026
epoch [2/20], loss:0.0016
epoch [3/20], loss:0.0012
epoch [4/20], loss:0.0010
epoch [5/20], loss:0.0008
epoch [6/20], loss:0.0007
epoch [7/20], loss:0.0006
epoch [8/20], loss:0.0006
epoch [9/20], loss:0.0006
epoch [10/20], loss:0.0005
epoch [11/20], loss:0.0005
epoch [12/20], loss:0.0005
epoch [13/20], loss:0.0005
epoch [14/20], loss:0.0005
epoch [15/20], loss:0.0005
epoch [16/20], loss:0.0004
epoch [17/20], loss:0.0004
epoch [18/20], loss:0.0004
epoch [19/20], loss:0.0004
epoch [20/20], loss:0.0004
Training has Completed

Forward pass occuring
Forward pass completed

MultiModal_Thermal_T3_Thermal_T3_2024-03-20-07-55-16

---------------------------------
STD Global Classification Results
TPR 0.930, FPR 0.381, Precision 0.038, Recall 0.930
tn 41117, fp 25272, fn 75, tp 997
```

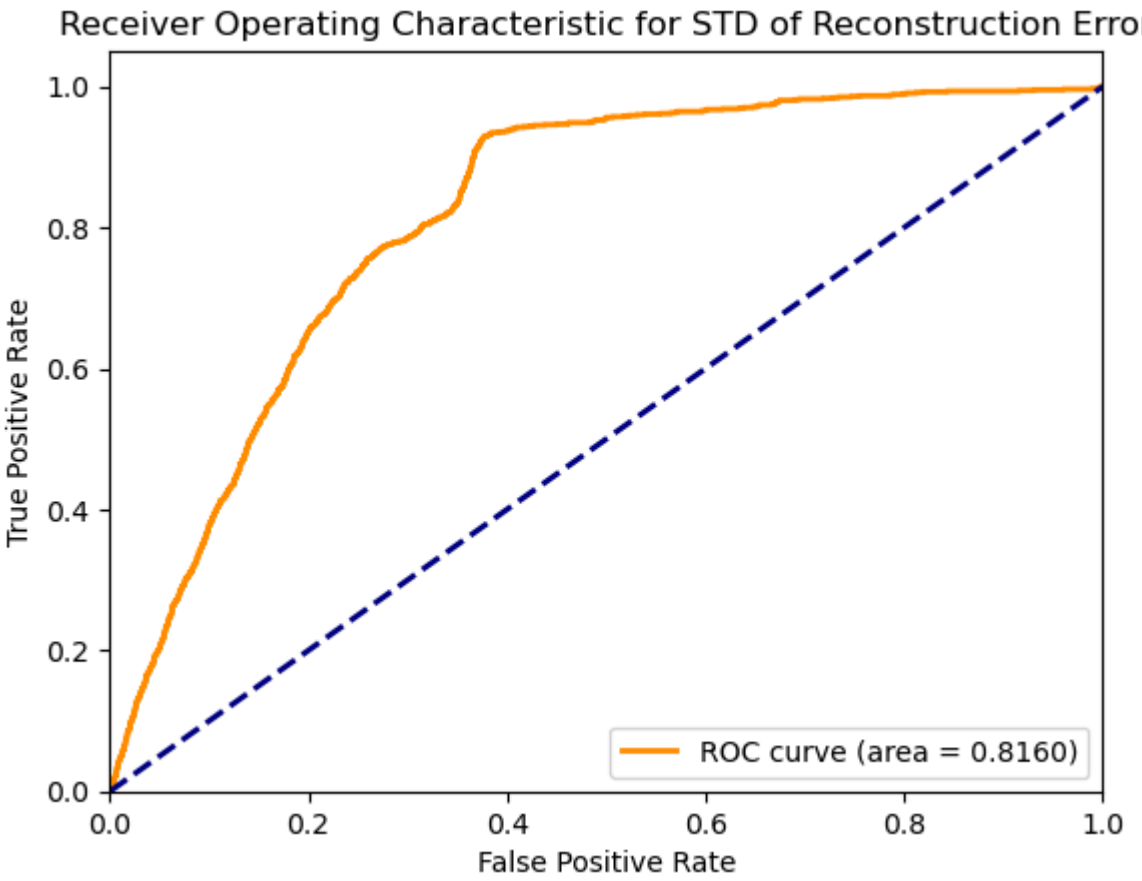
```
std_AUROC  0.816
----------------------------------
----------------------------------
Mean Global Classification Results
TPR 0.799, FPR 0.305, Precision 0.041, Recall 0.799
tn 46162, fp 20227, fn 216, tp 856
mean_AUROC 0.809
----------------------------------
d:\Abdul Rasheed NITT\Academics\Eigth Semester\FYP\Implementation\FallDetection\Code\funct
ions.py:250: RuntimeWarning: Mean of empty slice
  final_performance_mean = np.nanmean(video_metrics, axis=0)  # get the mean performance a
cross all videos
c:\Users\abdul\anaconda3\envs\fyp_base_paper_2\lib\site-packages\numpy\lib\nanfunctions.p
y:1670: RuntimeWarning: Degrees of freedom <= 0 for slice.
  var = nanvar(a, axis=axis, dtype=dtype, out=out, ddof=ddof,
----------------------------------
STD Global Classification Results
TPR 0.929, FPR 0.377, Precision 0.038, Recall 0.929
tn 41376, fp 25013, fn 76, tp 996
std_AUROC  0.816
----------------------------------
----------------------------------
Mean Global Classification Results
TPR 0.813, FPR 0.313, Precision 0.040, Recall 0.813
tn 45583, fp 20806, fn 200, tp 872
mean_AUROC 0.805
----------------------------------
d:\Abdul Rasheed NITT\Academics\Eigth Semester\FYP\Implementation\FallDetection\Code\funct
ions.py:250: RuntimeWarning: Mean of empty slice
  final_performance_mean = np.nanmean(video_metrics, axis=0)  # get the mean performance a
cross all videos
c:\Users\abdul\anaconda3\envs\fyp_base_paper_2\lib\site-packages\numpy\lib\nanfunctions.p
y:1670: RuntimeWarning: Degrees of freedom <= 0 for slice.
  var = nanvar(a, axis=axis, dtype=dtype, out=out, ddof=ddof,
----------------------------------
STD Global Classification Results
TPR 0.934, FPR 0.382, Precision 0.038, Recall 0.934
tn 41041, fp 25348, fn 71, tp 1001
std_AUROC  0.816
----------------------------------
----------------------------------
Mean Global Classification Results
TPR 0.799, FPR 0.303, Precision 0.041, Recall 0.799
tn 46282, fp 20107, fn 215, tp 857
mean_AUROC 0.807
----------------------------------
d:\Abdul Rasheed NITT\Academics\Eigth Semester\FYP\Implementation\FallDetection\Code\funct
ions.py:250: RuntimeWarning: Mean of empty slice
  final_performance_mean = np.nanmean(video_metrics, axis=0)  # get the mean performance a
cross all videos
c:\Users\abdul\anaconda3\envs\fyp_base_paper_2\lib\site-packages\numpy\lib\nanfunctions.p
y:1670: RuntimeWarning: Degrees of freedom <= 0 for slice.
  var = nanvar(a, axis=axis, dtype=dtype, out=out, ddof=ddof,
()
```

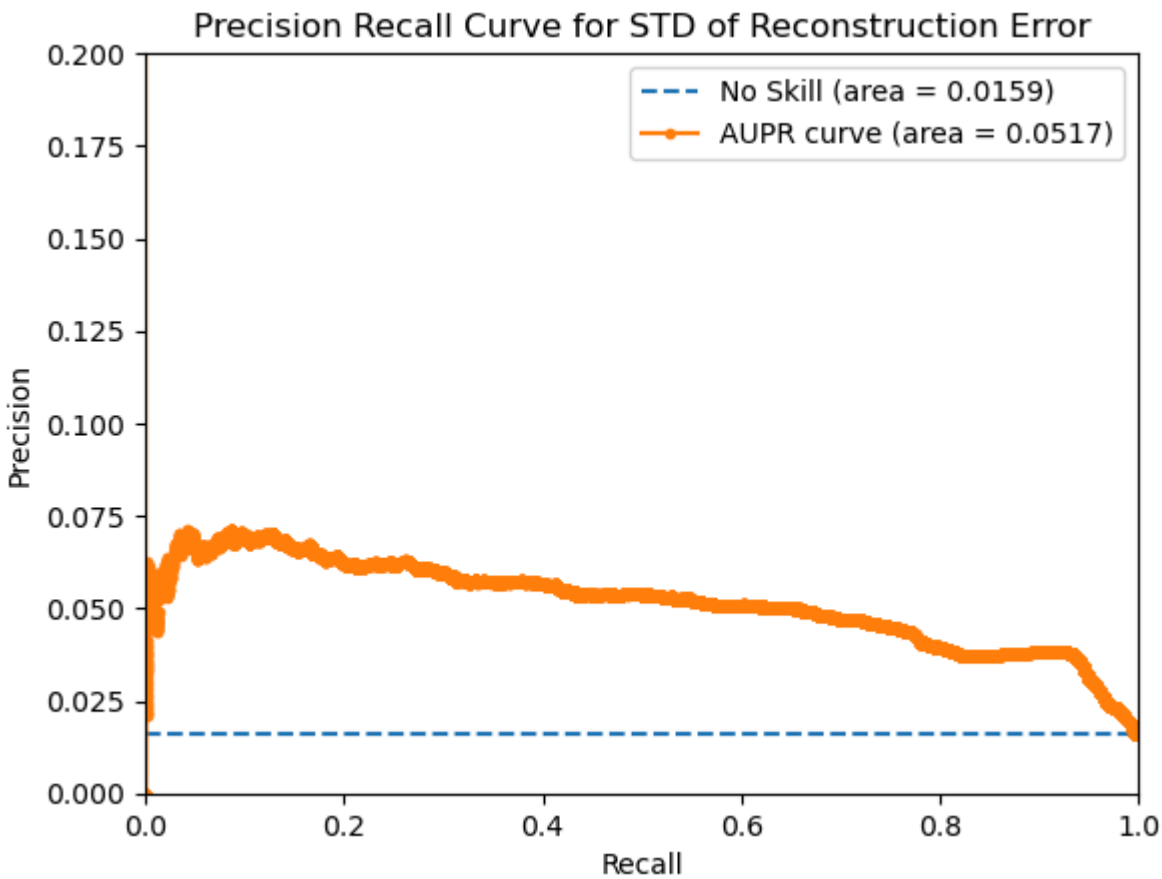

Receiver Operating Characteristic for STD of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.8158)
0.0
0.2
0.4
0.6
0.8
1.0

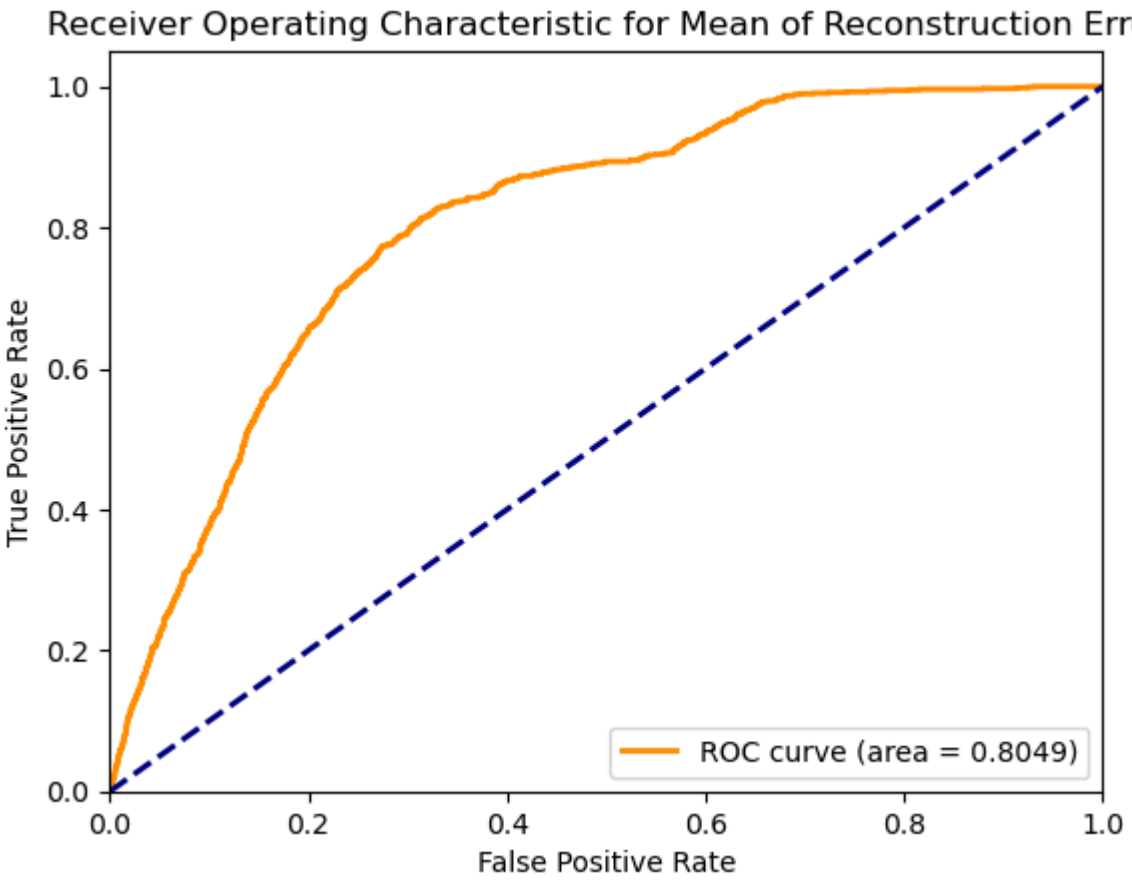

Precision Recall Curve for STD of Reconstruction Error
Precision
Recall
No Skill (area = 0.0159)
AUPR curve (area = 0.0520)
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0.200
0.0
0.2
0.4
0.6
0.8
1.0

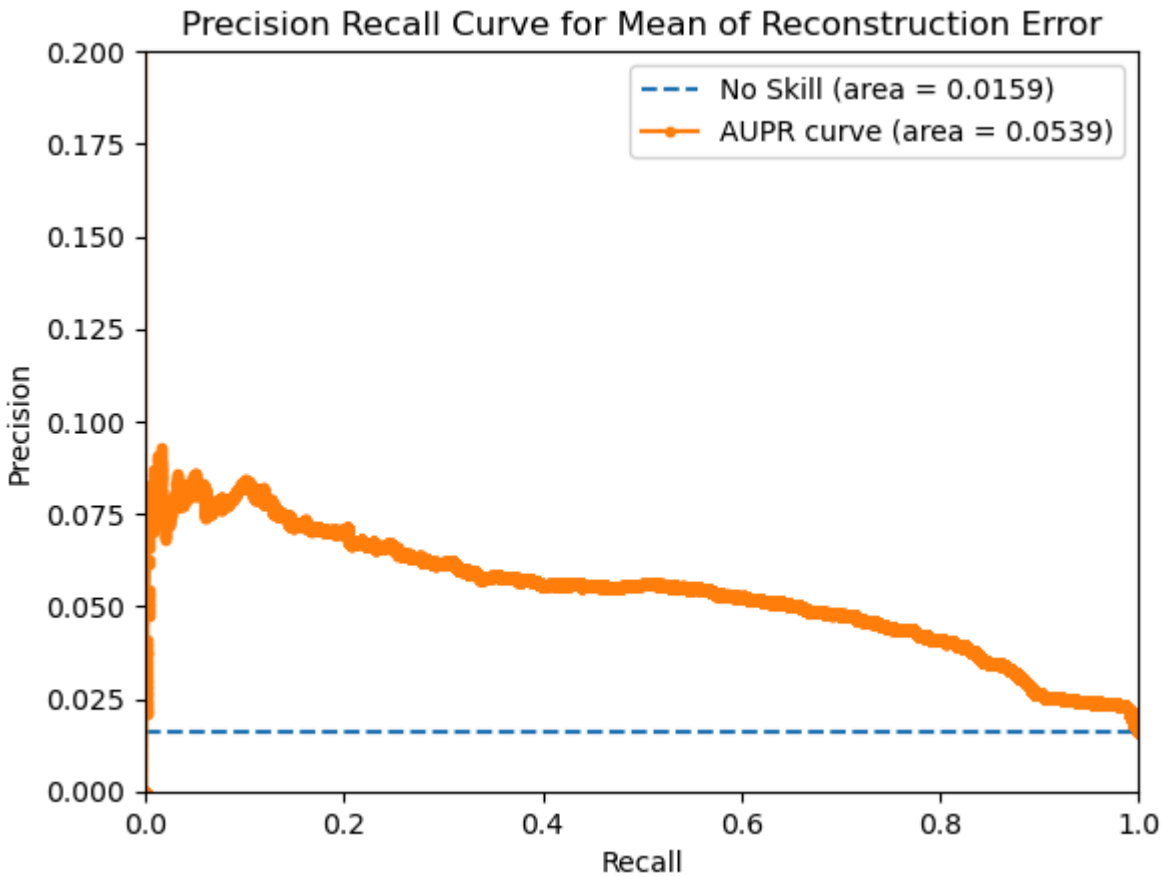

Receiver Operating Characteristic for Mean of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.8086)
0.0
0.2
0.4
0.6
0.8
1.0

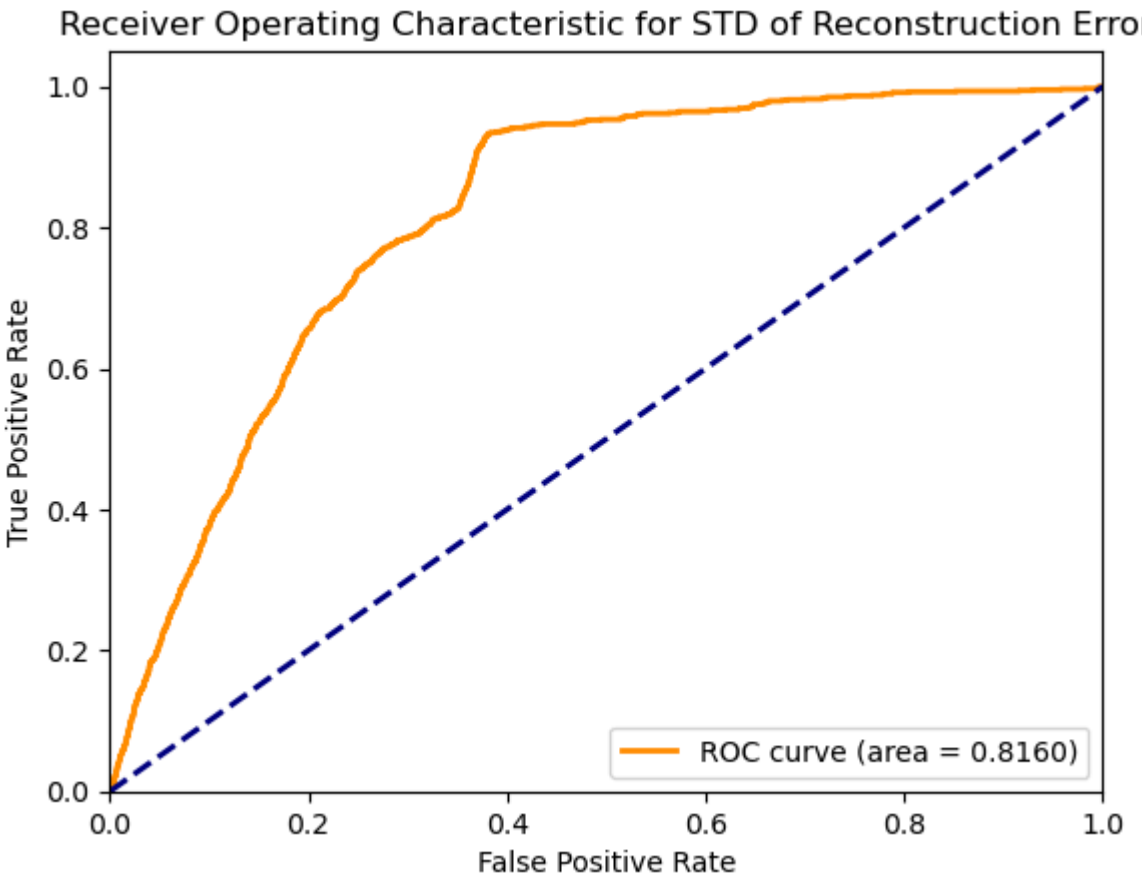

Precision Recall Curve for Mean of Reconstruction Error
Precision
Recall
No Skill (area = 0.0159)
AUPR curve (area = 0.0521)
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0.200
0.0
0.2
0.4
0.6
0.8
1.0

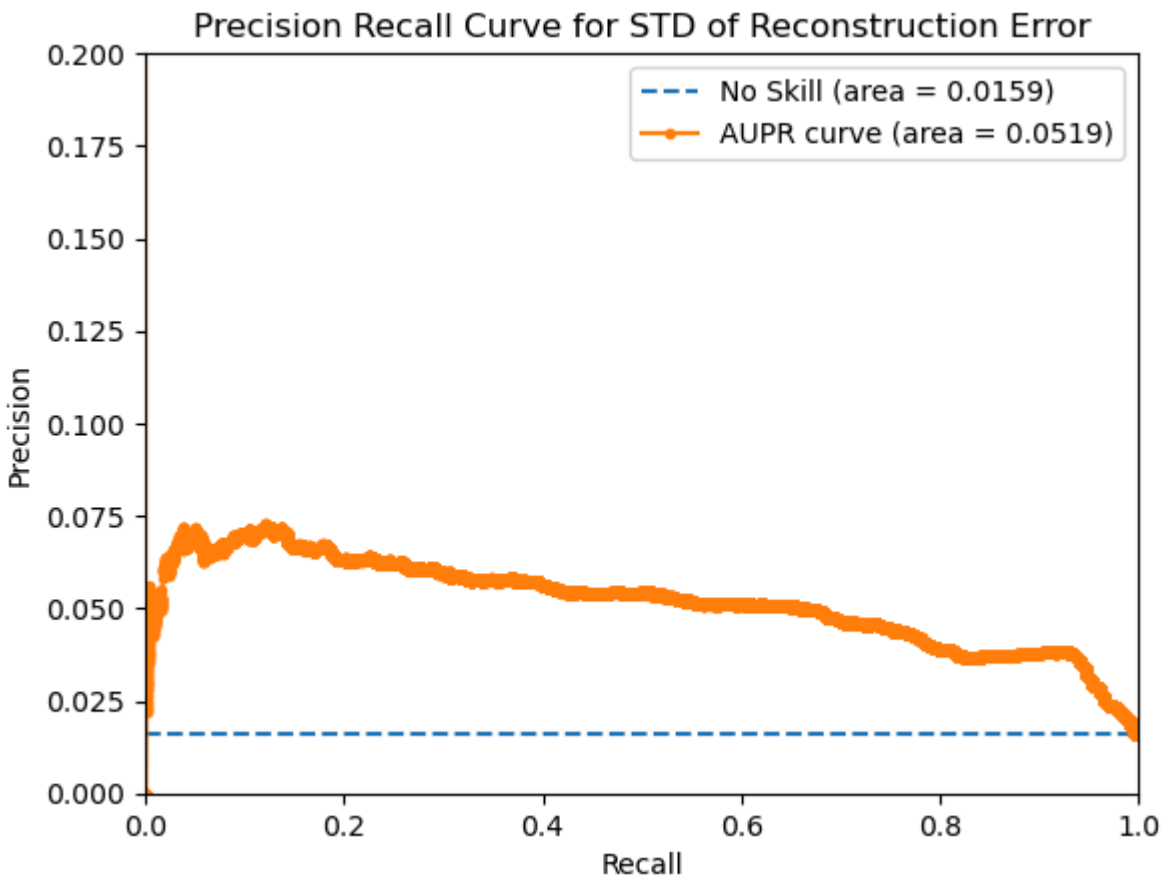

Receiver Operating Characteristic for STD of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.8160)
0.0
0.2
0.4
0.6
0.8
1.0

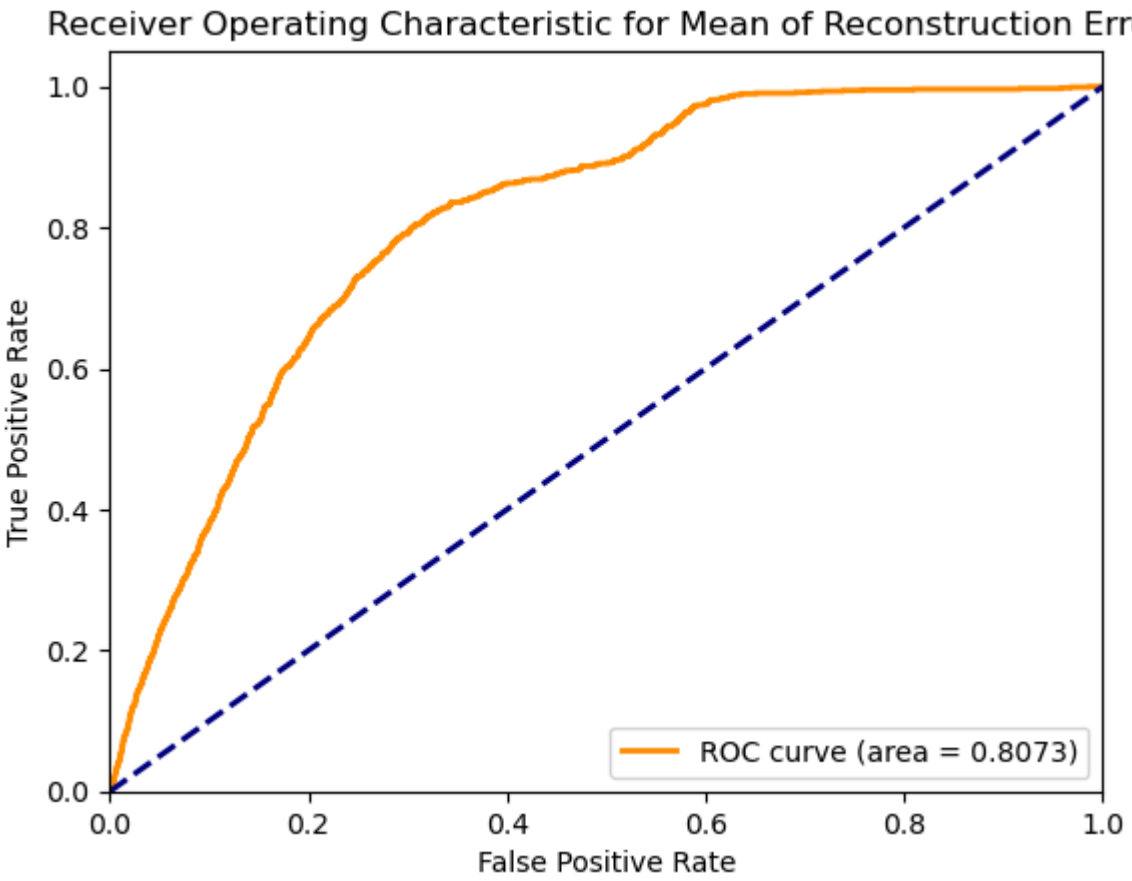

Precision Recall Curve for STD of Reconstruction Error
Precision
Recall
No Skill (area = 0.0159)
AUPR curve (area = 0.0517)
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0.200
0.0
0.2
0.4
0.6
0.8
1.0

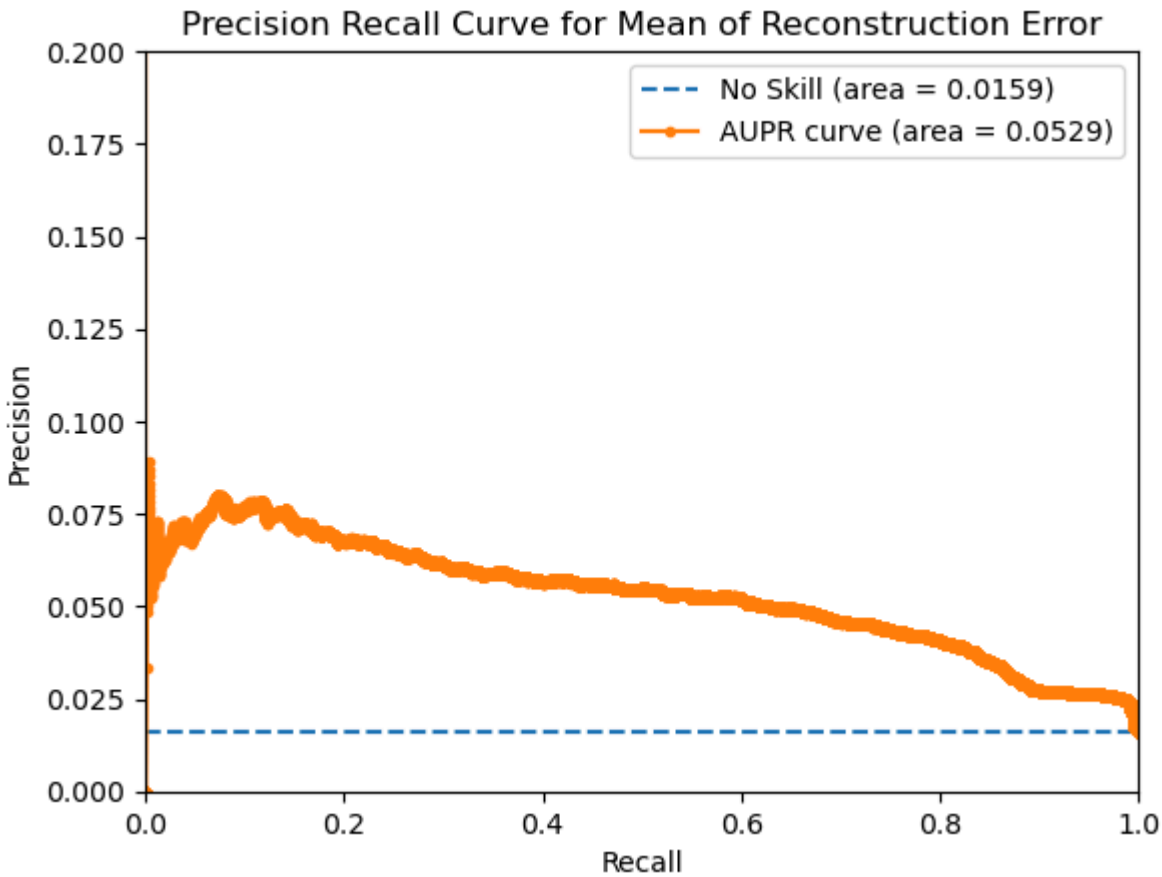

Receiver Operating Characteristic for Mean of Reconstruction Error
True Positive Rate
False Positive Rate
ROC curve (area = 0.8049)
0.0
0.2
0.4
0.6
0.8
1.0


Precision Recall Curve for Mean of Reconstruction Error
Precision
Recall
No Skill (area = 0.0159)
AUPR curve (area = 0.0539)
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 = 0.8160)
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 = 0.0159)
AUPR curve (area = 0.0519)
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 = 0.8073)
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 = 0.0159)
AUPR curve (area = 0.0529)
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