

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

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

Train Dataloader - 48
Test Dataloader - 173

Device Used - cuda

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

Frame rate adjusted dataset - True
Synchronise Video - True
Video length adjustment method - Not Applicable

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 = L1Loss()

Training has Begun
epoch [1/20], loss:0.0463
epoch [2/20], loss:0.0373
epoch [3/20], loss:0.0337
epoch [4/20], loss:0.0316
epoch [5/20], loss:0.0303
epoch [6/20], loss:0.0293
epoch [7/20], loss:0.0287
epoch [8/20], loss:0.0283
epoch [9/20], loss:0.0279
epoch [10/20], loss:0.0277
epoch [11/20], loss:0.0274
epoch [12/20], loss:0.0272
epoch [13/20], loss:0.0269
epoch [14/20], loss:0.0266
epoch [15/20], loss:0.0264
epoch [16/20], loss:0.0262
epoch [17/20], loss:0.0260
epoch [18/20], loss:0.0259
epoch [19/20], loss:0.0258
epoch [20/20], loss:0.0256
Training has Completed

Forward pass occurring
Forward pass completed

MultiModal_Thermal_T3_ONI_IR_T_2024-04-24-16-37-55

```
-----  
STD Global Classification Results  
TPR 0.885, FPR 0.299, Precision 0.039, Recall 0.885  
tn 91962, fp 39160, fn 206, tp 1590  
std_AUROC 0.842  
-----
```

```
-----  
Mean Global Classification Results  
TPR 0.914, FPR 0.278, Precision 0.043, Recall 0.914  
tn 94687, fp 36435, fn 154, tp 1642  
mean_AUROC 0.870  
-----
```

```
d:\Abdul Rasheed NITT\Academics\Eighth Semester\FYP\Implementation\FallDetection\Code\functions.py:250: RuntimeWarning: Mean of empty slice  
  final_performance_mean = np.nanmean(video_metrics, axis=0) # get the mean performance across all videos  
c:\Users\abdul\anaconda3\envs\fyp_base_paper_2\lib\site-packages\numpy\lib\nanfunctions.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 0.886, FPR 0.260, Precision 0.045, Recall 0.886  
tn 97039, fp 34083, fn 204, tp 1592  
std_AUROC 0.866  
-----
```

```
-----  
Mean Global Classification Results  
TPR 0.907, FPR 0.203, Precision 0.058, Recall 0.907  
tn 104552, fp 26570, fn 167, tp 1629  
mean_AUROC 0.897  
-----
```

```
d:\Abdul Rasheed NITT\Academics\Eighth Semester\FYP\Implementation\FallDetection\Code\functions.py:250: RuntimeWarning: Mean of empty slice  
  final_performance_mean = np.nanmean(video_metrics, axis=0) # get the mean performance across all videos  
c:\Users\abdul\anaconda3\envs\fyp_base_paper_2\lib\site-packages\numpy\lib\nanfunctions.py:1670: RuntimeWarning: Degrees of freedom <= 0 for slice.  
  var = nanvar(a, axis=axis, dtype=dtype, out=out, ddof=ddof,
```

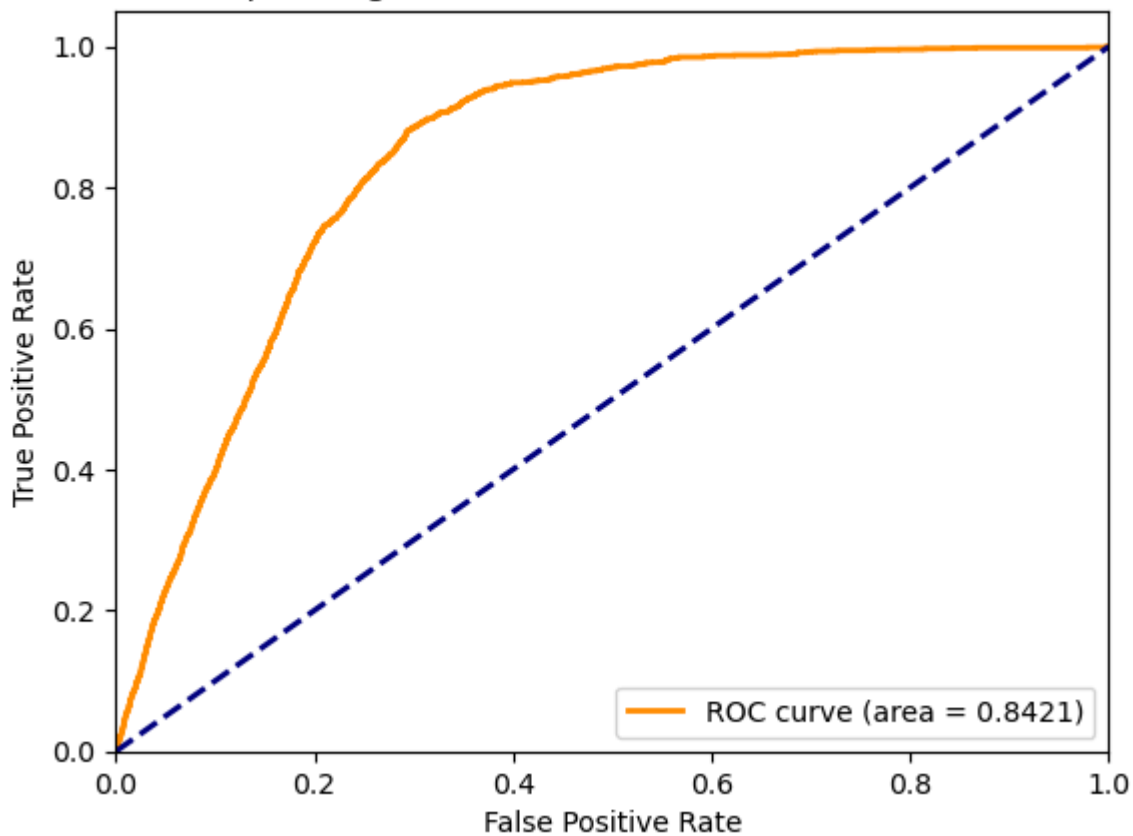
```
-----  
STD Global Classification Results  
TPR 0.918, FPR 0.297, Precision 0.041, Recall 0.918  
tn 92151, fp 38971, fn 148, tp 1648  
std_AUROC 0.868  
-----
```

```
-----  
Mean Global Classification Results  
TPR 0.947, FPR 0.250, Precision 0.049, Recall 0.947  
tn 98371, fp 32751, fn 95, tp 1701  
mean_AUROC 0.896  
-----
```

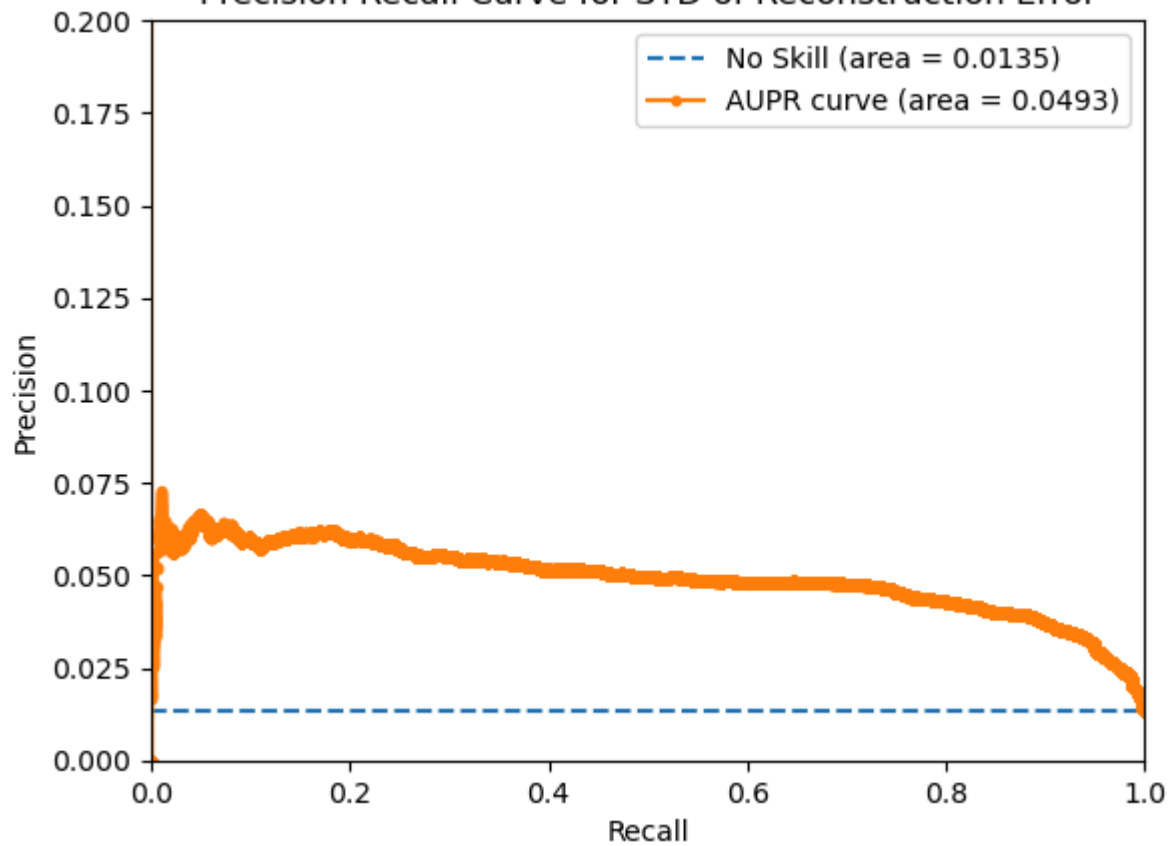
```
d:\Abdul Rasheed NITT\Academics\Eighth Semester\FYP\Implementation\FallDetection\Code\functions.py:250: RuntimeWarning: Mean of empty slice  
  final_performance_mean = np.nanmean(video_metrics, axis=0) # get the mean performance across all videos  
c:\Users\abdul\anaconda3\envs\fyp_base_paper_2\lib\site-packages\numpy\lib\nanfunctions.py:1670: RuntimeWarning: Degrees of freedom <= 0 for slice.  
  var = nanvar(a, axis=axis, dtype=dtype, out=out, ddof=ddof,
```

()

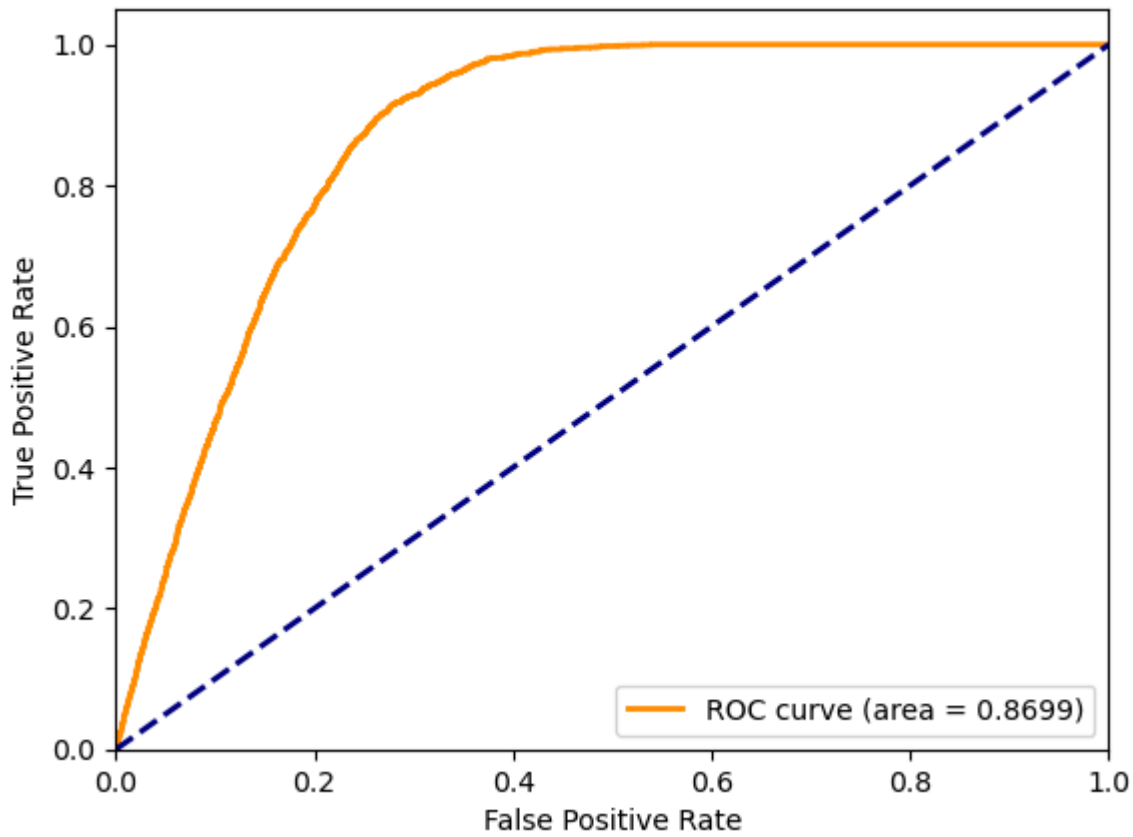
Receiver Operating Characteristic for STD of Reconstruction Error



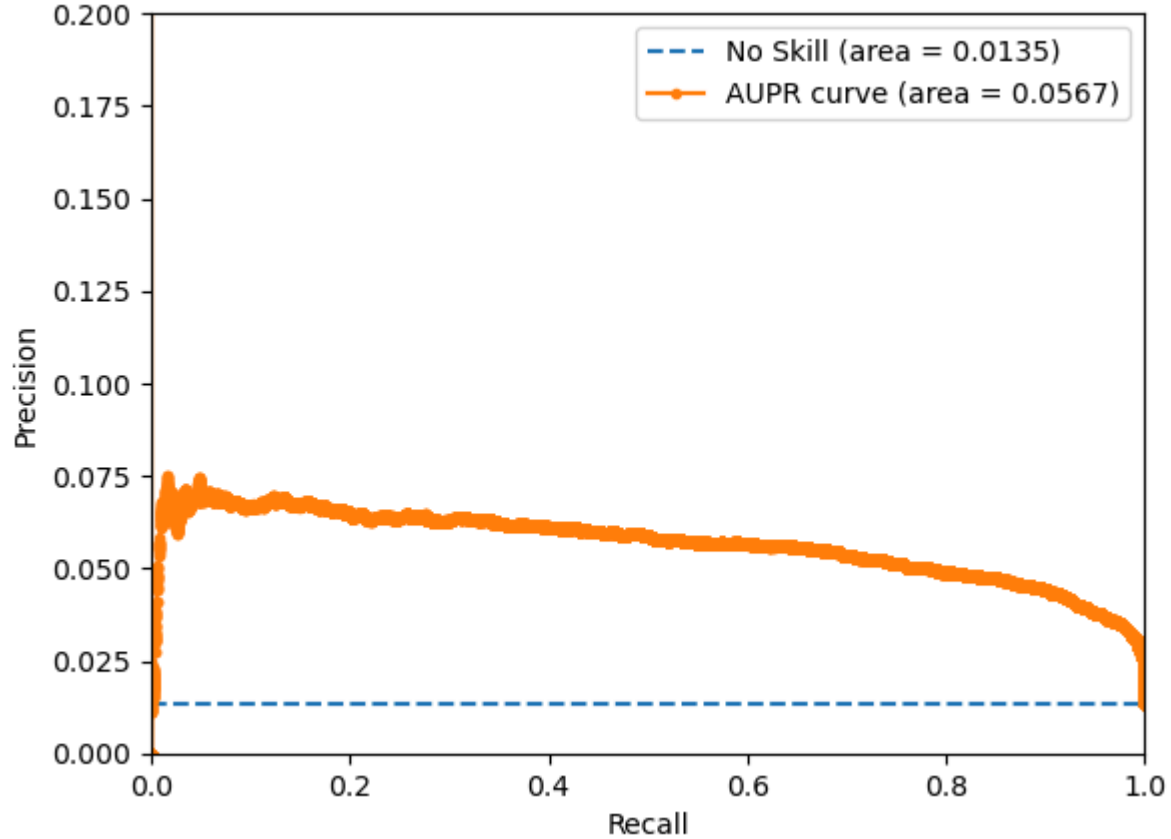
Precision Recall Curve for STD of Reconstruction Error



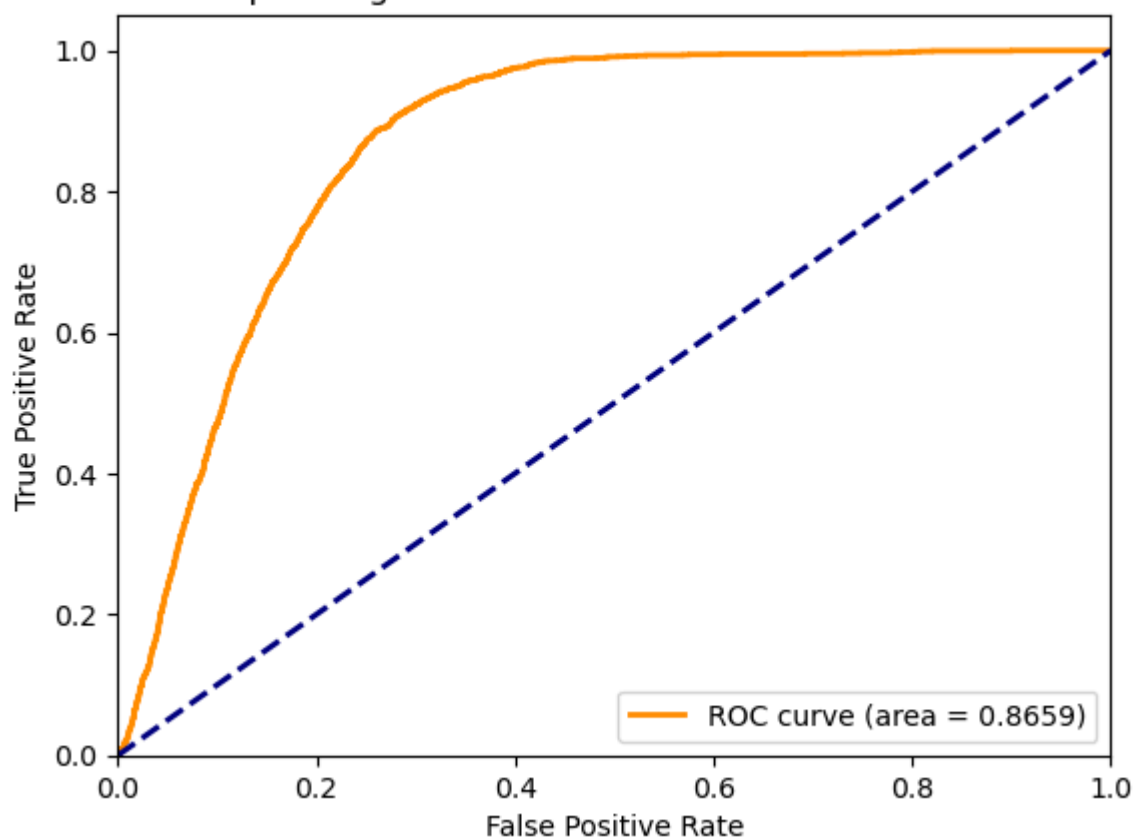
Receiver Operating Characteristic for Mean of Reconstruction Error



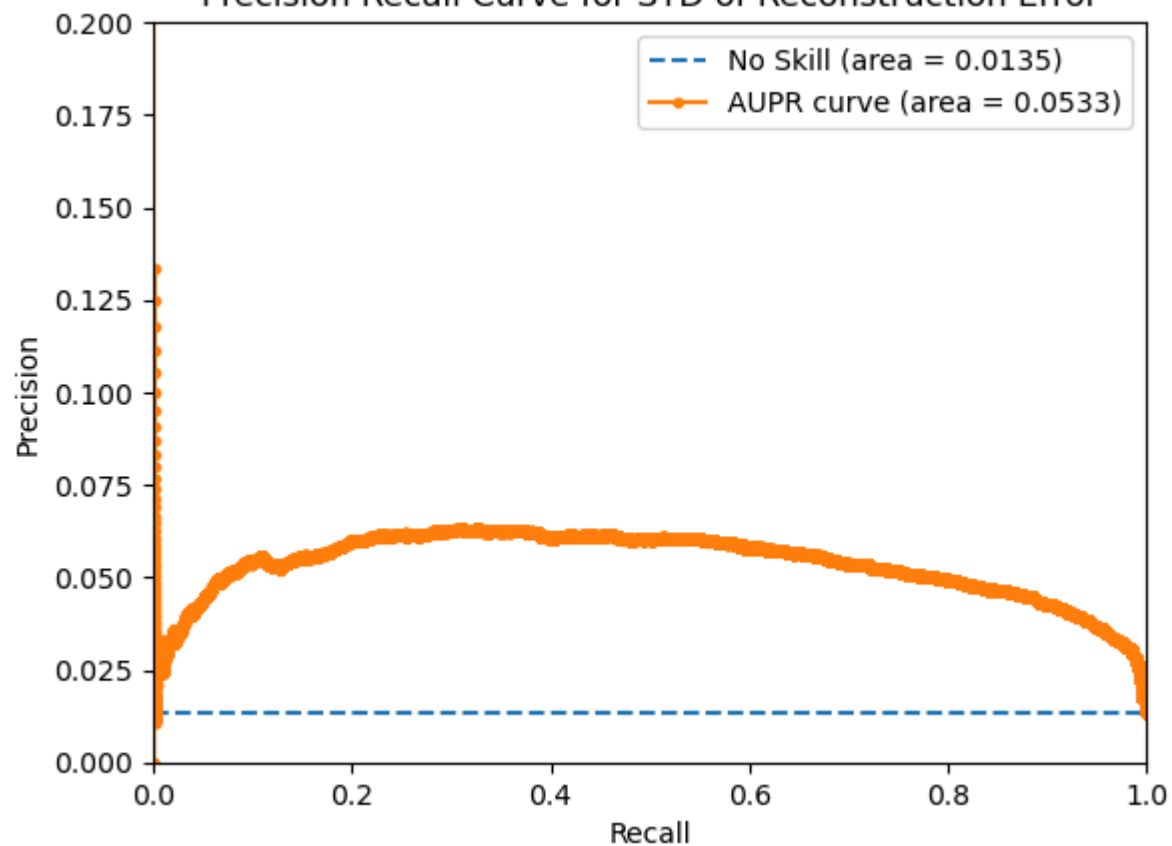
Precision Recall Curve for Mean of Reconstruction Error



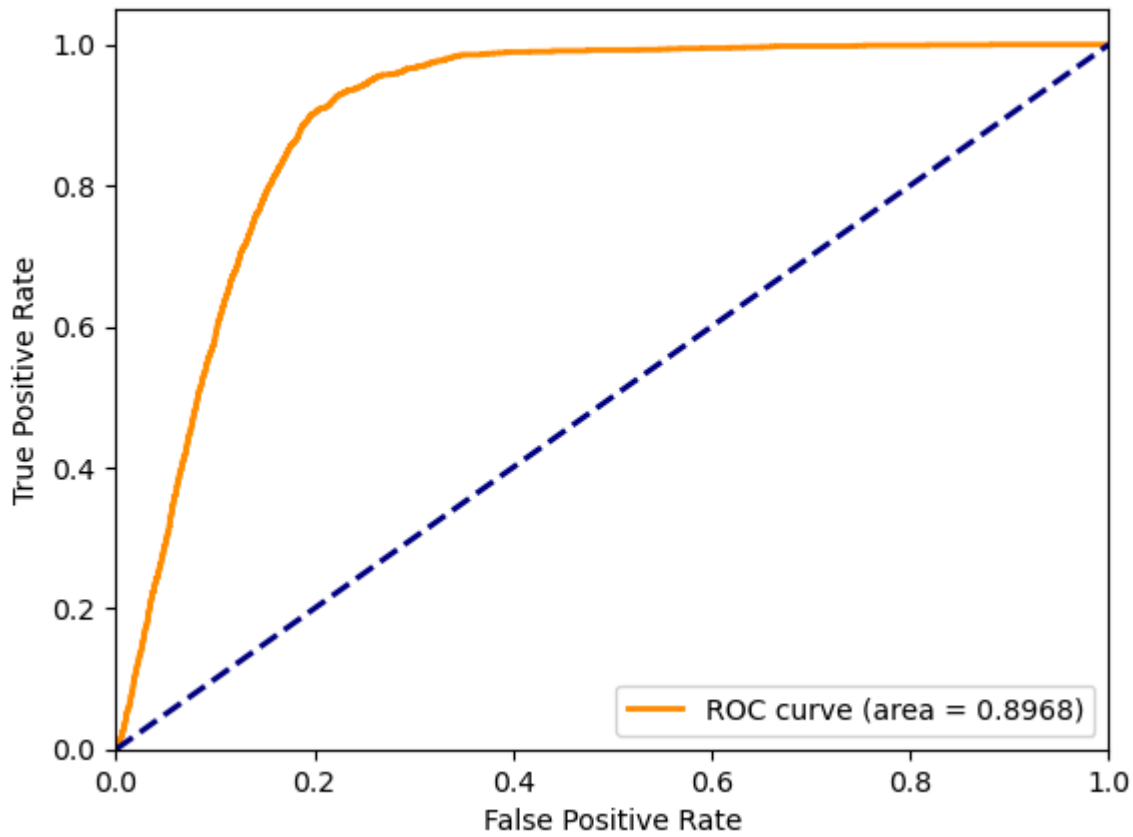
Receiver Operating Characteristic for STD of Reconstruction Error



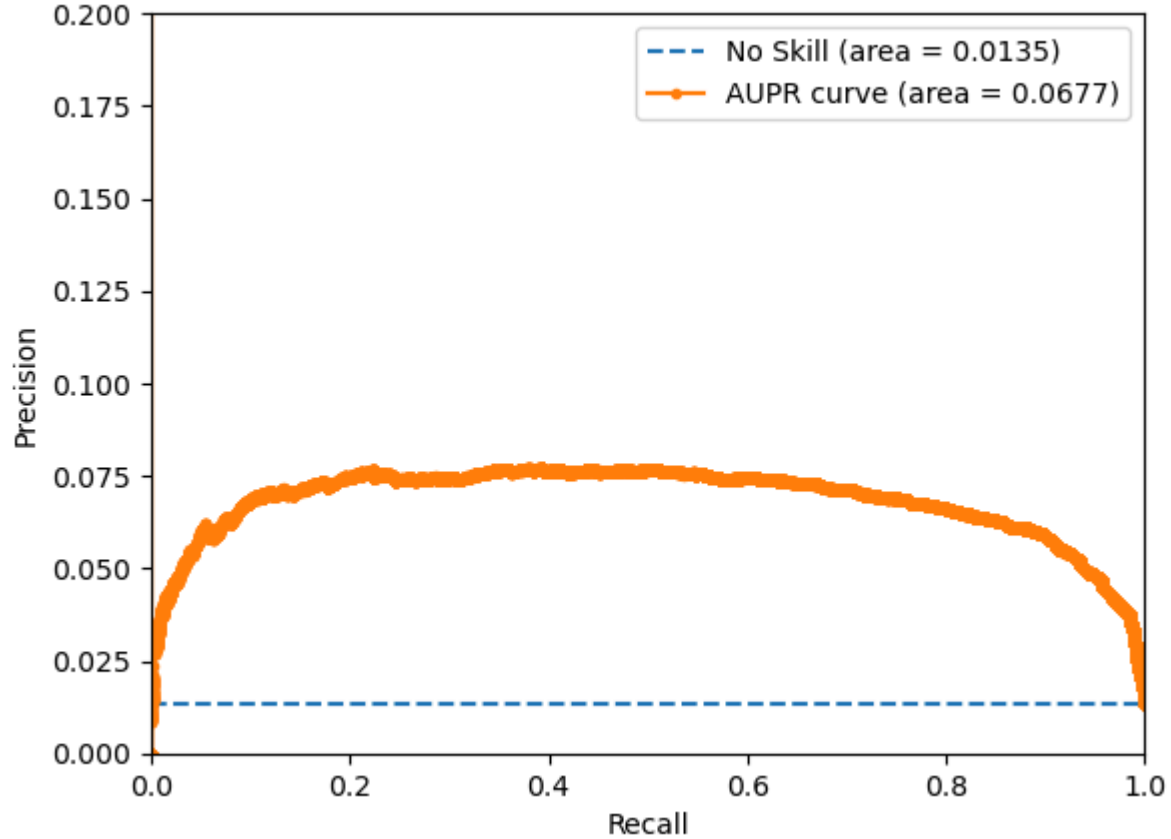
Precision Recall Curve for STD of Reconstruction Error



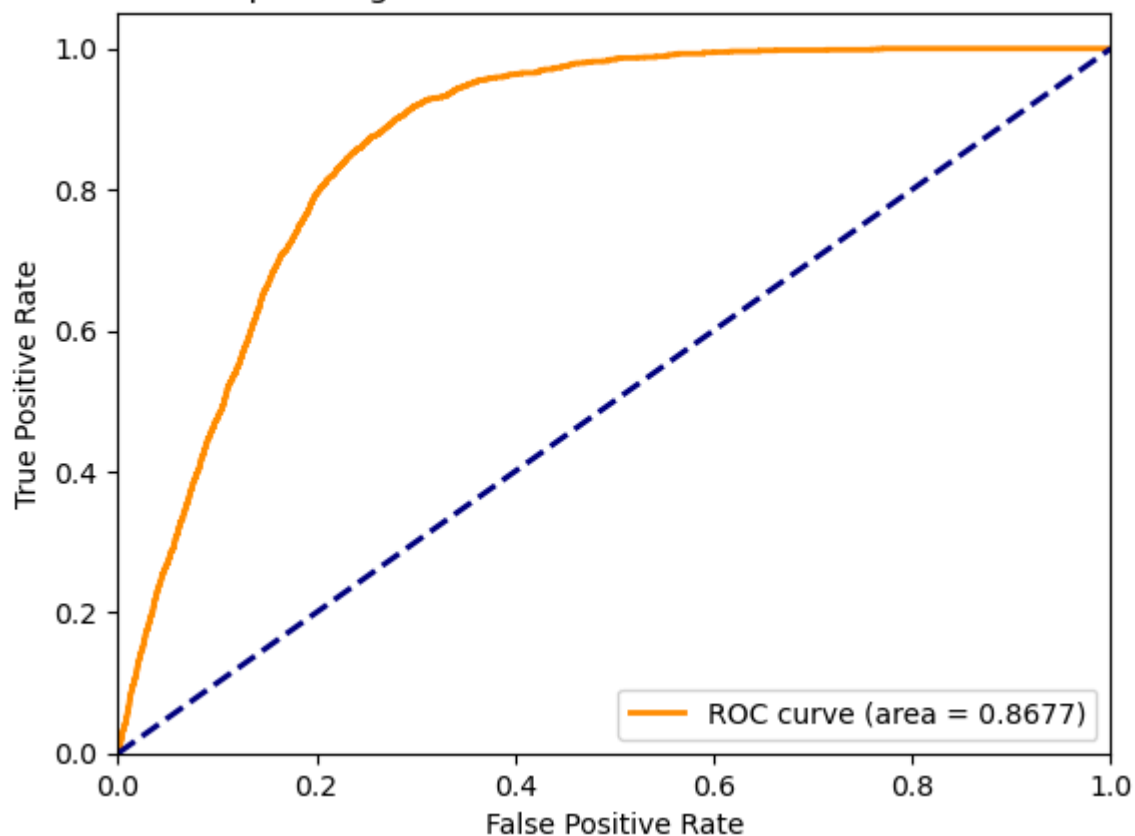
Receiver Operating Characteristic for Mean of Reconstruction Error



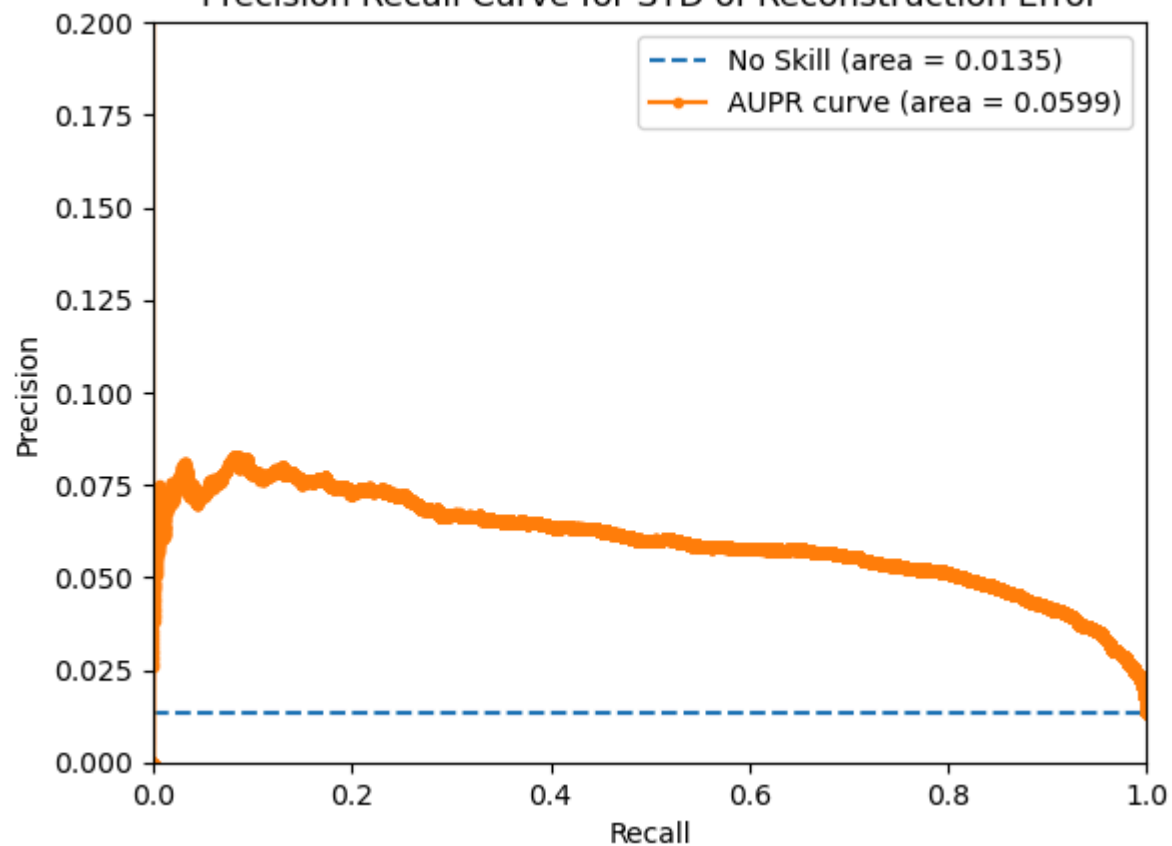
Precision Recall Curve for Mean of Reconstruction Error



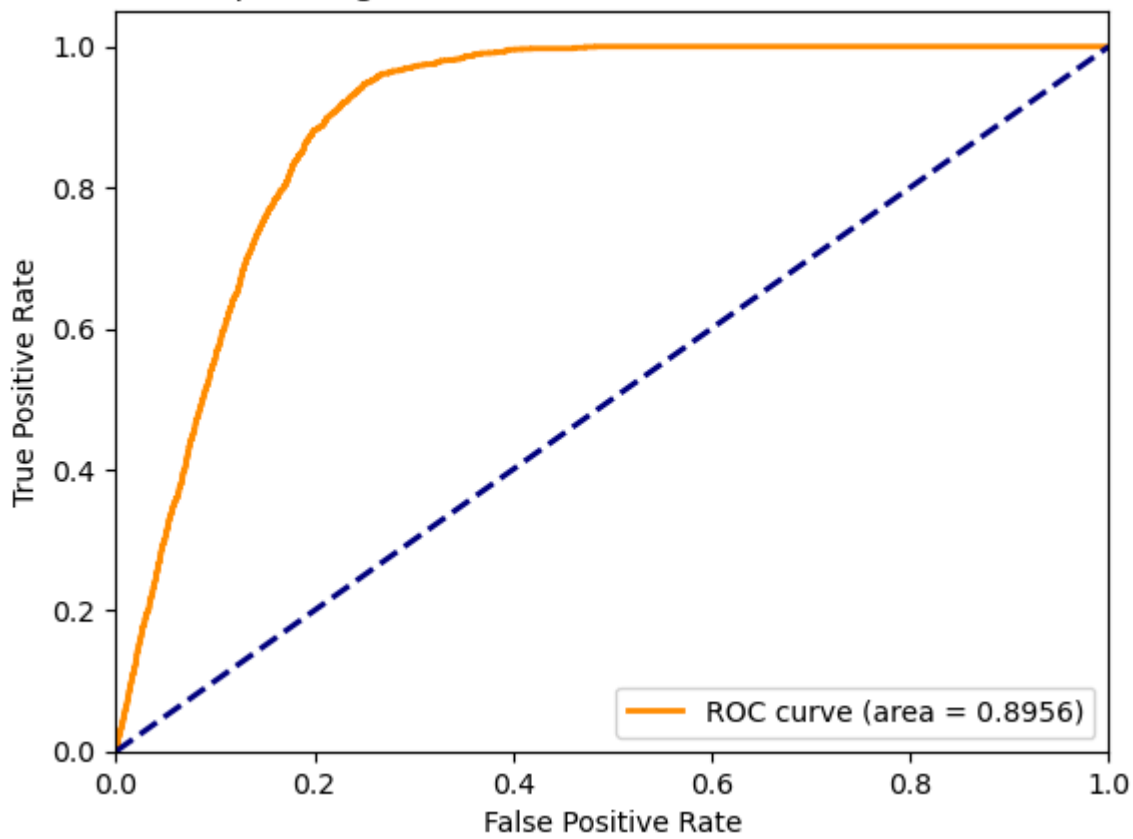
Receiver Operating Characteristic for STD of Reconstruction Error



Precision Recall Curve for STD of Reconstruction Error



Receiver Operating Characteristic for Mean of Reconstruction Error



Precision Recall Curve for Mean of Reconstruction Error

