

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 - True
Background Subtraction - True
Background Subtraction Algorithm - GMG
Data Augmentation - False
Spatial Temporal Loss - False

Frame rate adjusted dataset - True
Video length adjustment method - Trim Maximum

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()

Forward pass occurring
Forward pass completed

MultiModal_Thermal_T3_ONI_IR_T_2024-04-06-15-52-00

STD Global Classification Results
TPR 0.791, FPR 0.218, Precision 0.061, Recall 0.791
tn 103530, fp 28915, fn 496, tp 1878
std_AUROC 0.823

Mean Global Classification Results
TPR 0.821, FPR 0.266, Precision 0.052, Recall 0.821
tn 97175, fp 35270, fn 424, tp 1950
mean_AUROC 0.798

```
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 1.000, FPR 0.083, Precision 0.003, Recall 1.000  
tn 123551, fp 11238, fn 0, tp 30  
std_AUROC 0.961  
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Mean Global Classification Results  
TPR 1.000, FPR 0.137, Precision 0.002, Recall 1.000  
tn 116372, fp 18417, fn 0, tp 30  
mean_AUROC 0.960  
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```

```

c:\Users\abdul\anaconda3\envs\fyp_base_paper_2\lib\site-packages\sklearn\metrics\_ranking.
py:979: UserWarning: No positive class found in y_true, recall is set to one for all thres
holds.
    warnings.warn(
c:\Users\abdul\anaconda3\envs\fyp_base_paper_2\lib\site-packages\sklearn\metrics\_ranking.
py:1132: UndefinedMetricWarning: No positive samples in y_true, true positive value should
be meaningless
    warnings.warn(
c:\Users\abdul\anaconda3\envs\fyp_base_paper_2\lib\site-packages\sklearn\metrics\_ranking.
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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,

```

```

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STD Global Classification Results
TPR 0.717, FPR 0.196, Precision 0.061, Recall 0.717
tn 106436, fp 26009, fn 673, tp 1701
std_AUROC 0.807
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Mean Global Classification Results
TPR 0.830, FPR 0.384, Precision 0.037, Recall 0.830
tn 81571, fp 50874, fn 404, tp 1970
mean_AUROC 0.701
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```

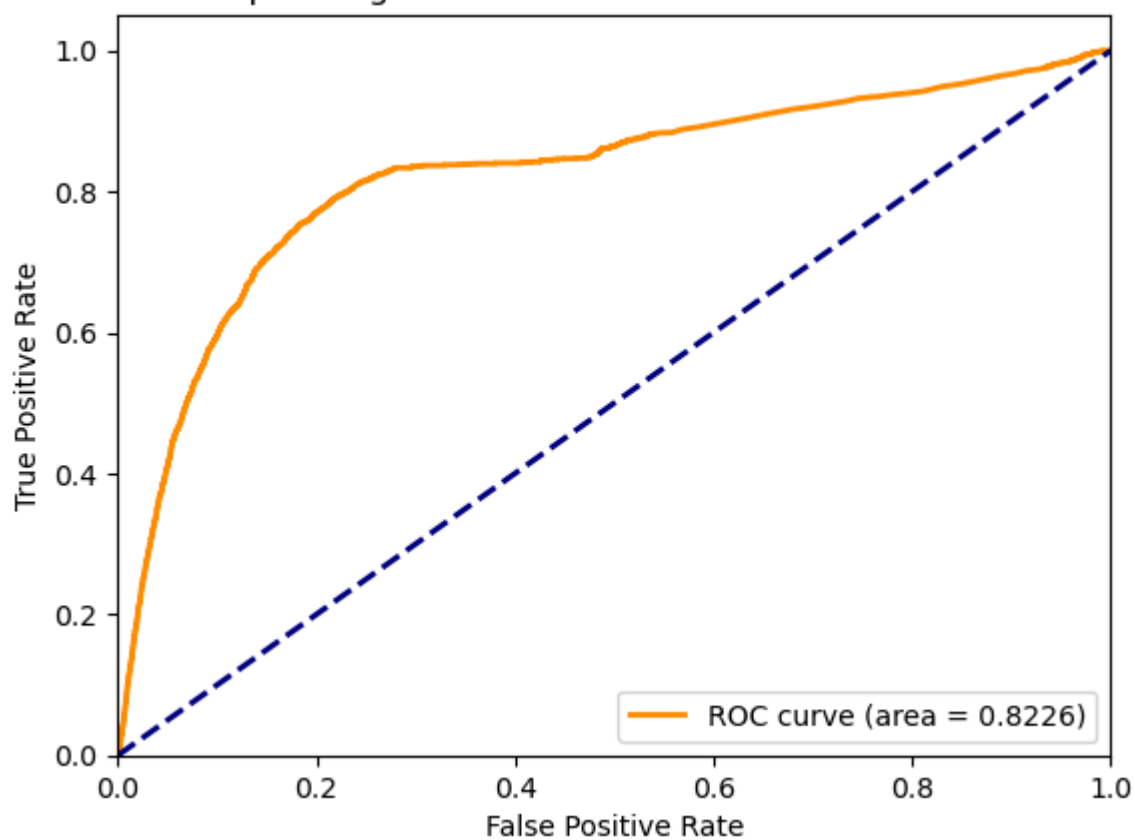
```

d:\Abdul Rasheed NITT\Academics\Eighth 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,

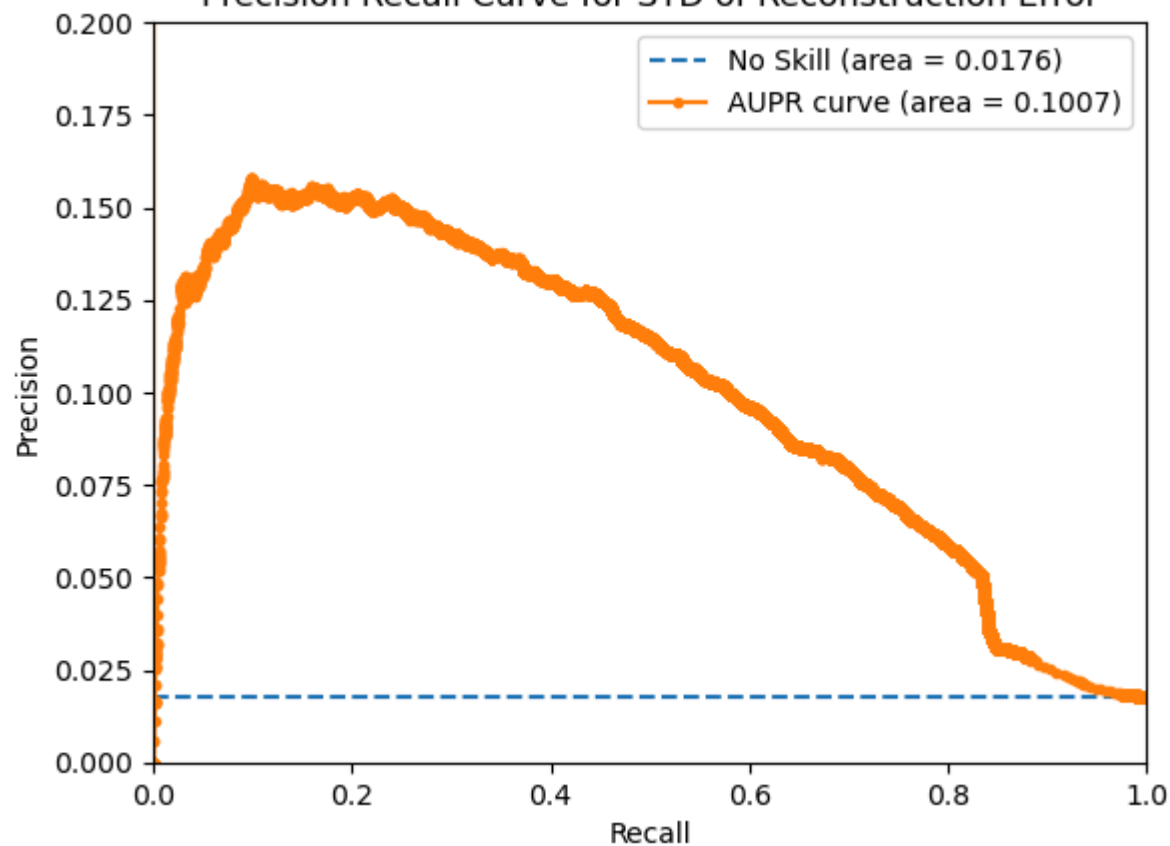
```

()

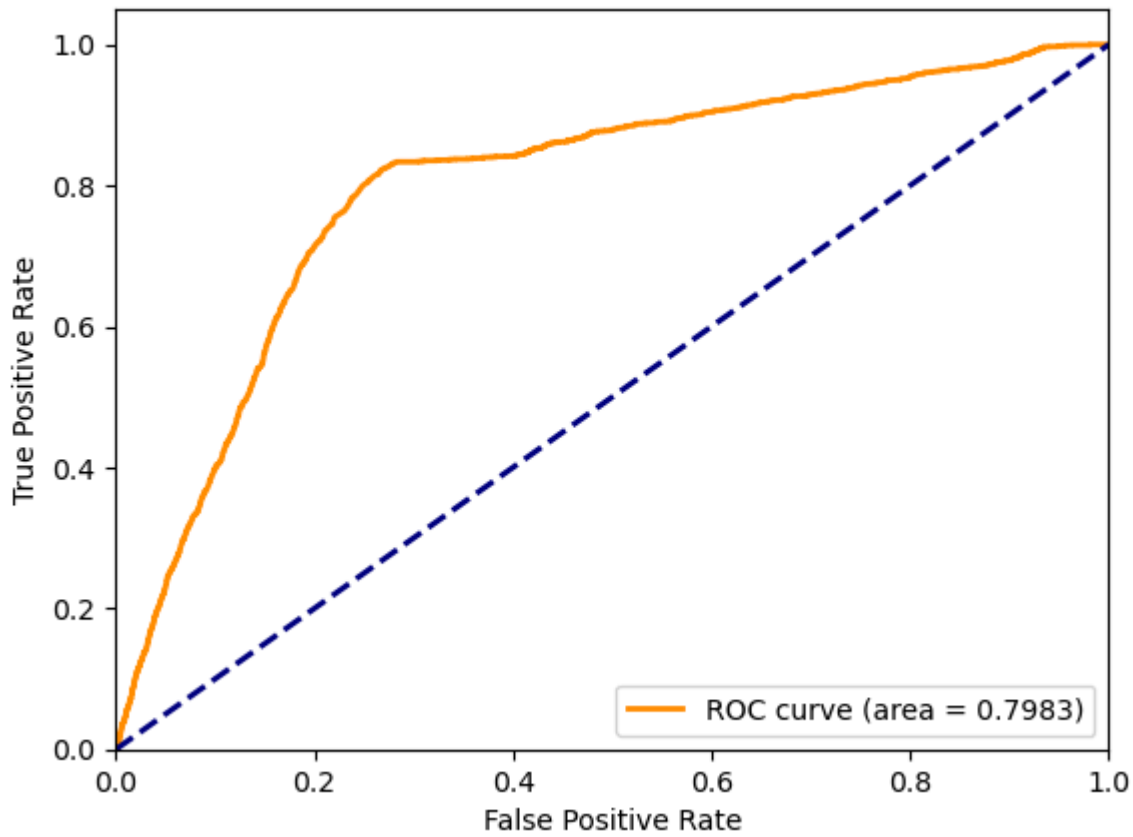
Receiver Operating Characteristic for STD of Reconstruction Error



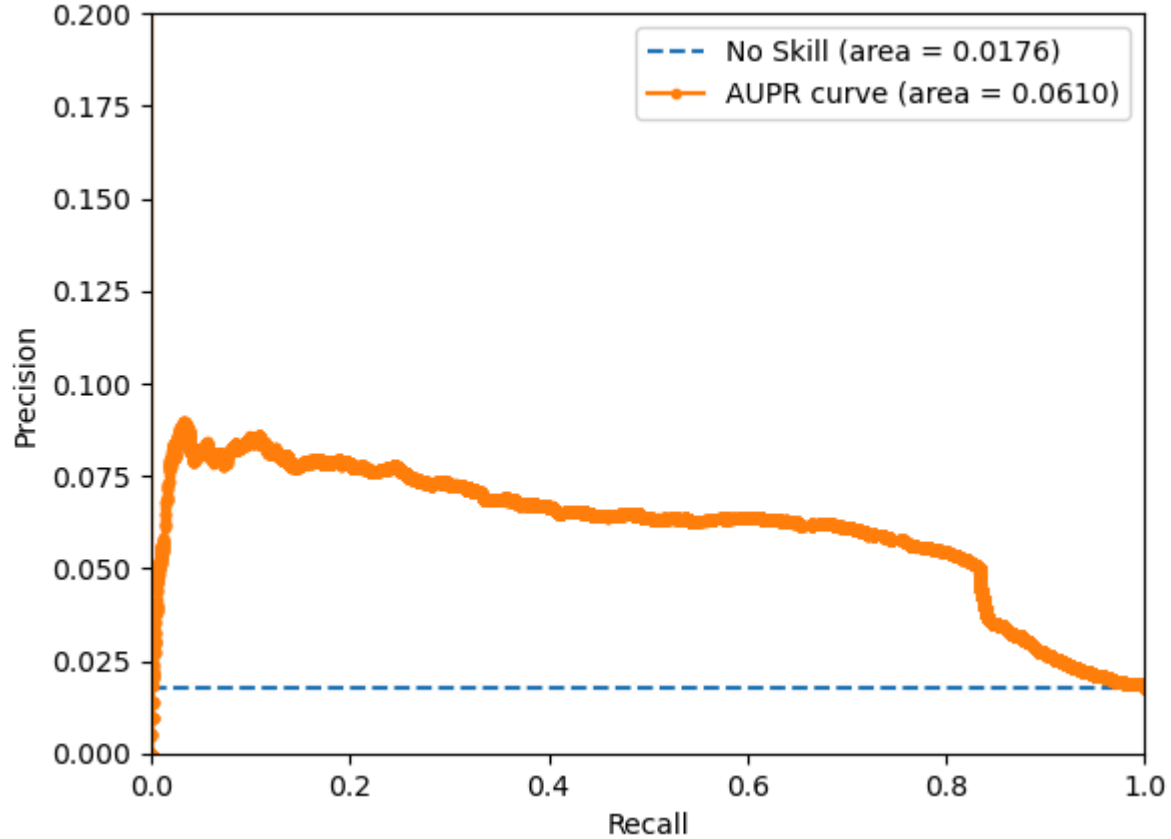
Precision Recall Curve for STD of Reconstruction Error



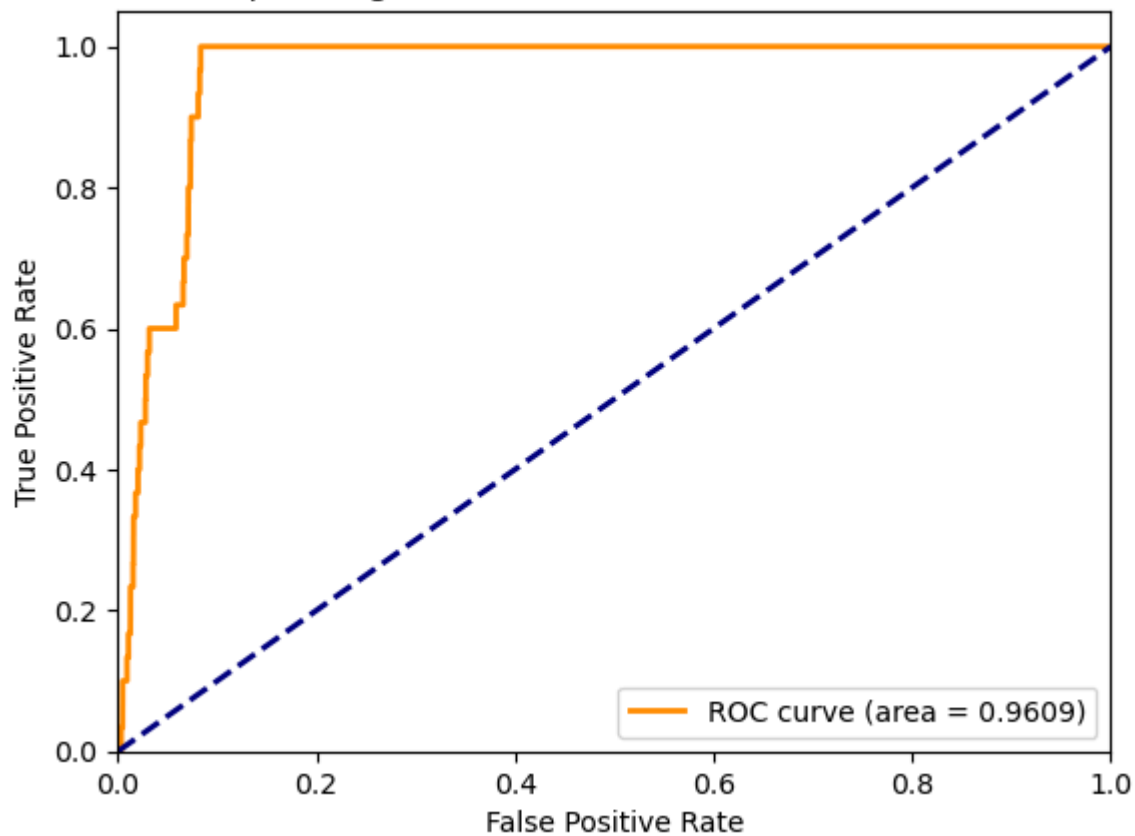
Receiver Operating Characteristic for Mean of Reconstruction Error



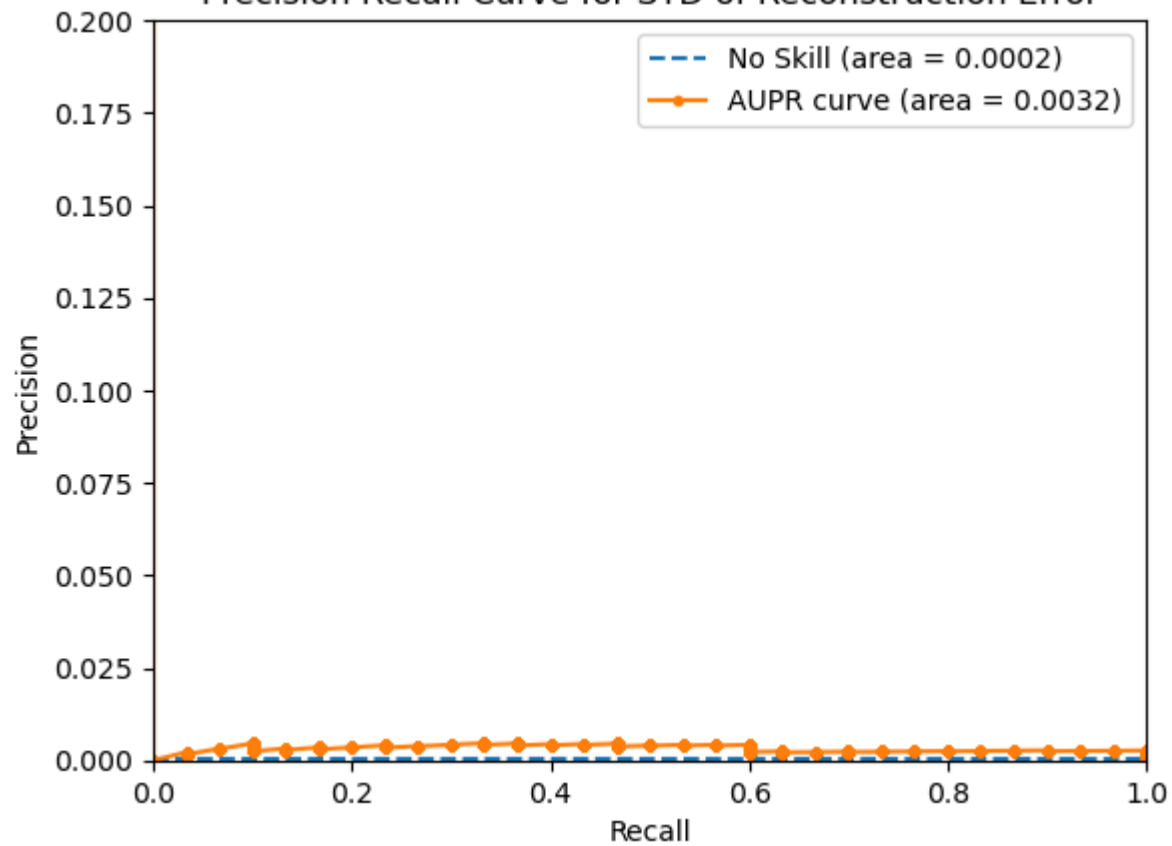
Precision Recall Curve for Mean of Reconstruction Error



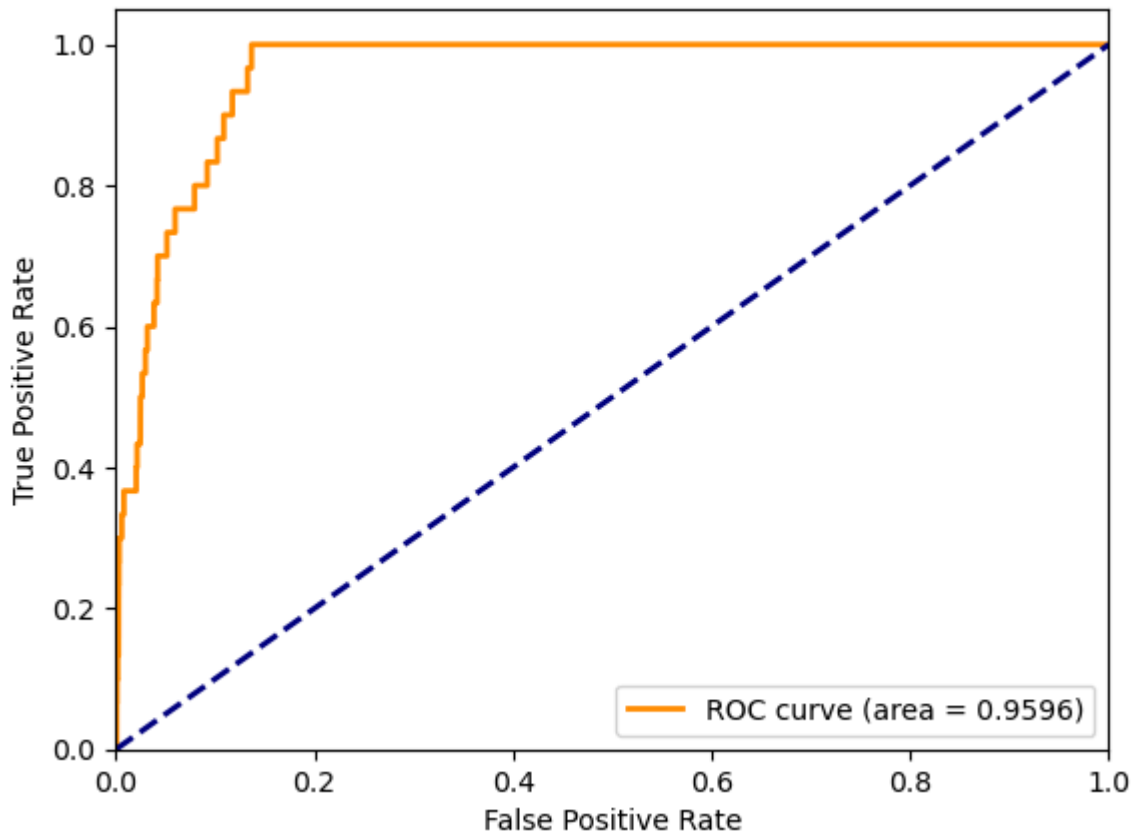
Receiver Operating Characteristic for STD of Reconstruction Error



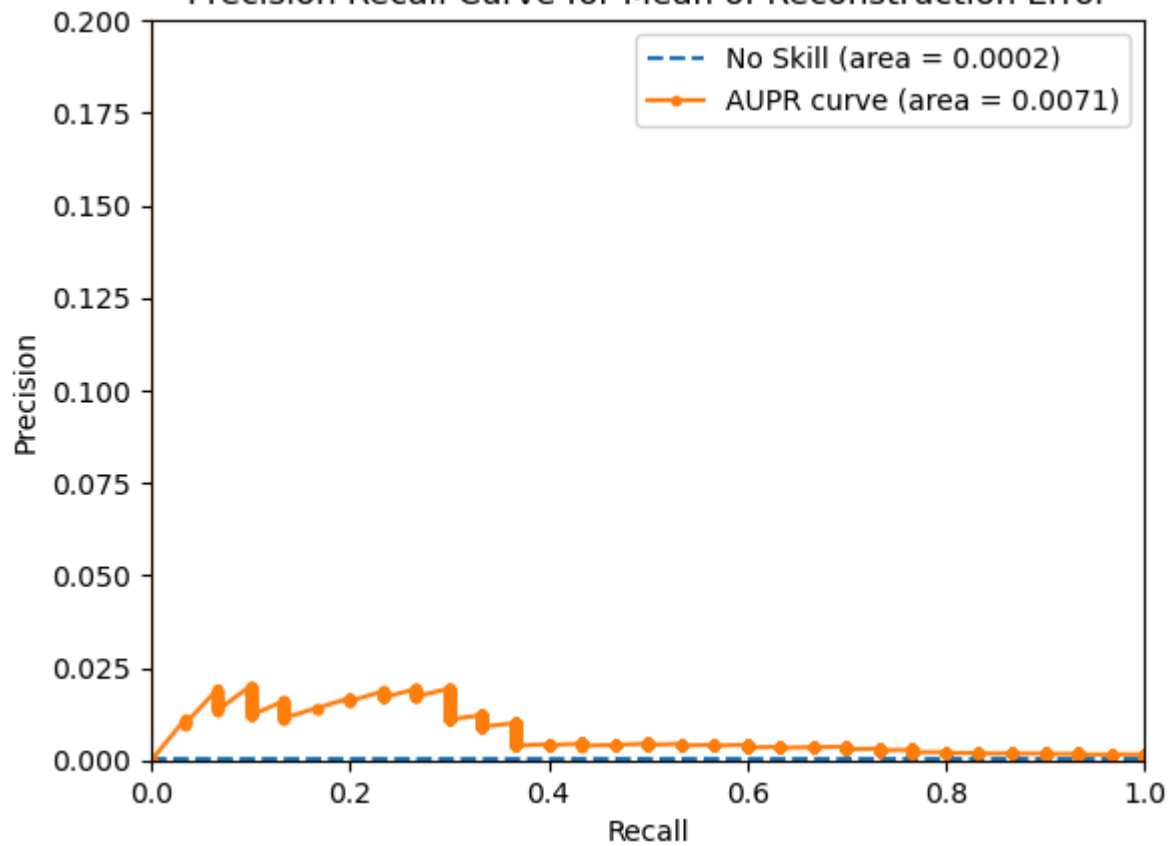
Precision Recall Curve for STD of Reconstruction Error



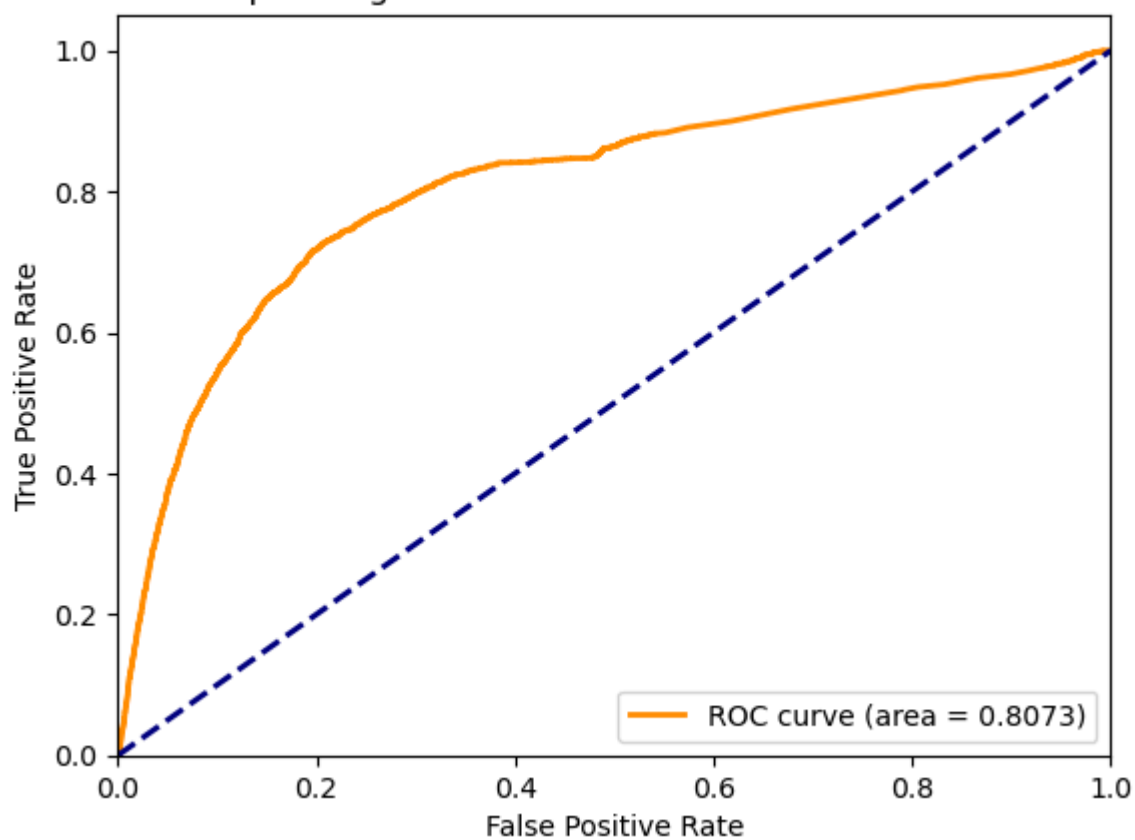
Receiver Operating Characteristic for Mean of Reconstruction Error



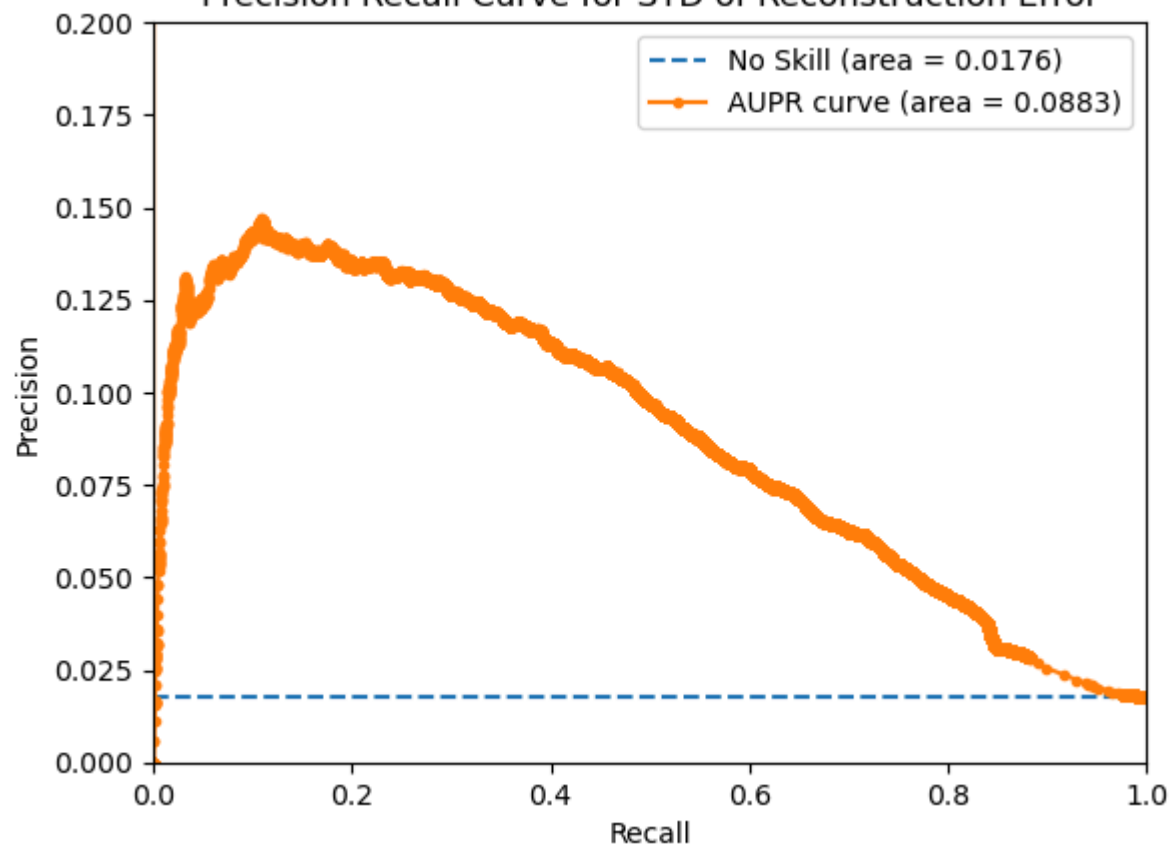
Precision Recall Curve for Mean of Reconstruction Error



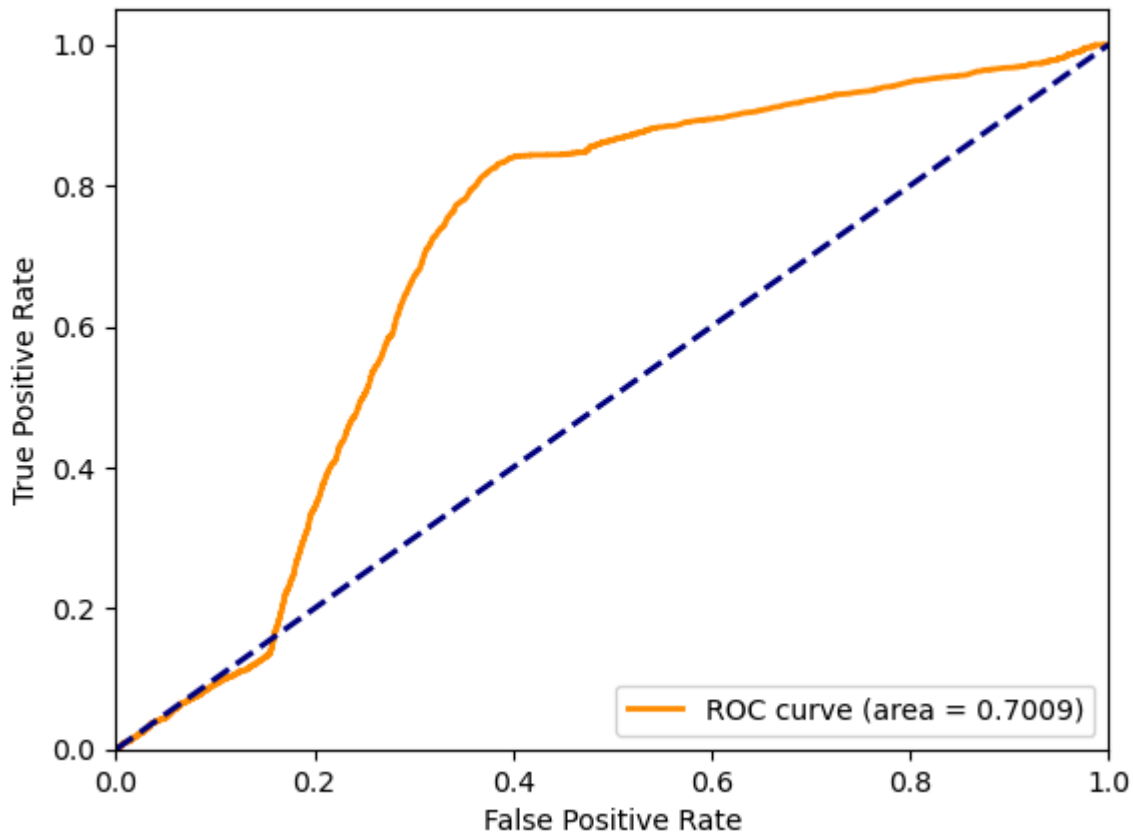
Receiver Operating Characteristic for STD of Reconstruction Error



Precision Recall Curve for STD of Reconstruction Error



Receiver Operating Characteristic for Mean of Reconstruction Error



Precision Recall Curve for Mean of Reconstruction Error

