

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 - True
Background Subtraction - True
Background Subtraction Algorithm - GMG
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 = SmoothL1Loss()

Training has Begun
epoch [1/20], loss:0.0001
epoch [2/20], loss:0.0000
epoch [3/20], loss:0.0000
epoch [4/20], loss:0.0000
epoch [5/20], loss:0.0000
epoch [6/20], loss:0.0000
epoch [7/20], loss:0.0000
epoch [8/20], loss:0.0000
epoch [9/20], loss:0.0000
epoch [10/20], loss:0.0000
epoch [11/20], loss:0.0000
epoch [12/20], loss:0.0000
epoch [13/20], loss:0.0000
epoch [14/20], loss:0.0000
epoch [15/20], loss:0.0000
epoch [16/20], loss:0.0000
epoch [17/20], loss:0.0000
epoch [18/20], loss:0.0000
epoch [19/20], loss:0.0000
epoch [20/20], loss:0.0000
Training has Completed

Forward pass occurring
Forward pass completed

```
-----  
STD Global Classification Results  
TPR 0.857, FPR 0.143, Precision 0.064, Recall 0.857  
tn 109208, fp 18261, fn 207, tp 1241  
std_AUROC 0.923  
-----
```

```
-----  
Mean Global Classification Results  
TPR 0.867, FPR 0.157, Precision 0.059, Recall 0.867  
tn 107467, fp 20002, fn 192, tp 1256  
mean_AUROC 0.925  
-----
```

```
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.  
py:979: UserWarning: No positive class found in y_true, recall is set to one for all thres  
holds.  
  warnings.warn(  
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holds.  
  warnings.warn(  
d:\Abdul Rasheed NITT\Academics\Eighth Semester\FYP\Implementation\FallDetection\Code\funct  
ions.py:302: 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 0.869, FPR 0.202, Precision 0.047, Recall 0.869  
tn 101732, fp 25737, fn 189, tp 1259  
std_AUROC 0.901  
-----
```

```
-----  
Mean Global Classification Results  
TPR 0.898, FPR 0.256, Precision 0.038, Recall 0.898  
tn 94891, fp 32578, fn 148, tp 1300  
mean_AUROC 0.888  
-----
```

```

c:\Users\abdul\anaconda3\envs\fyp_base_paper_2\lib\site-packages\sklearn\metrics\_ranking.
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    var = nanvar(a, axis=axis, dtype=dtype, out=out, ddof=ddof,

```

```

-----
STD Global Classification Results
TPR 0.878, FPR 0.168, Precision 0.056, Recall 0.878
tn 106091, fp 21378, fn 176, tp 1272
std_AUROC 0.931
-----

```

```

-----
Mean Global Classification Results
TPR 0.890, FPR 0.171, Precision 0.056, Recall 0.890
tn 105717, fp 21752, fn 159, tp 1289
mean_AUROC 0.926
-----

```

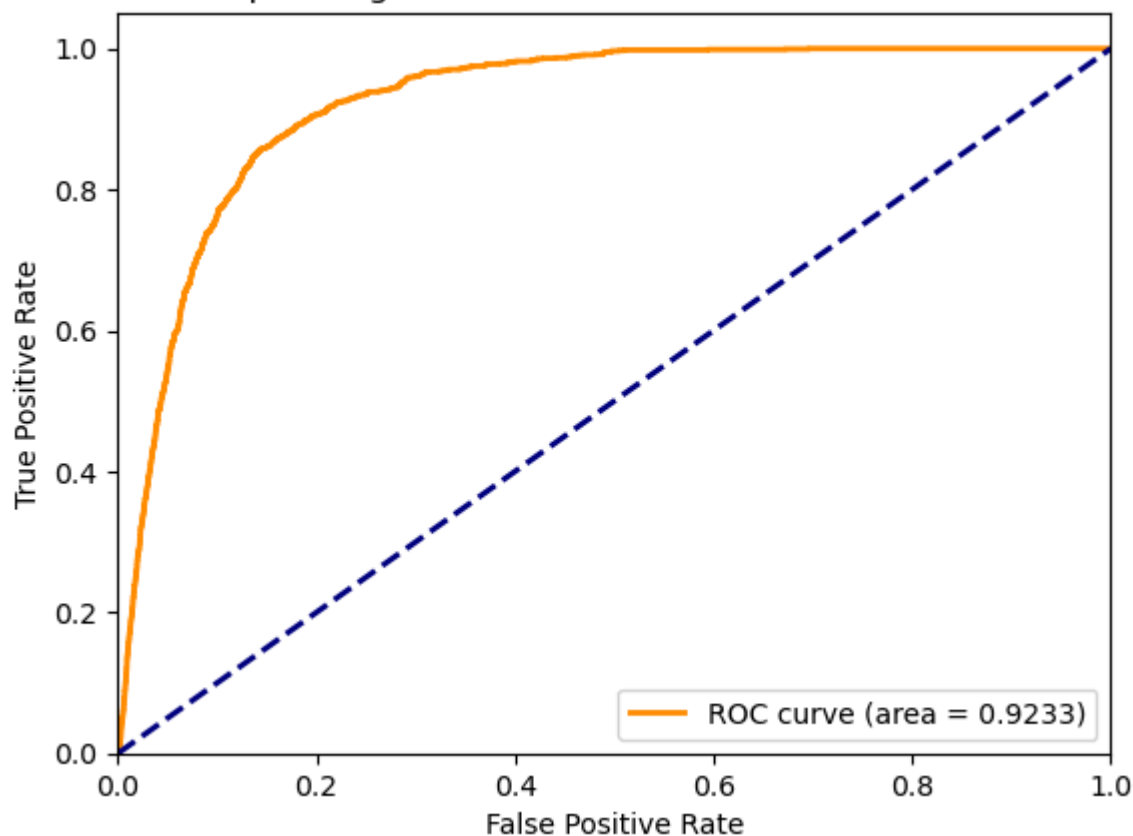
```

c:\Users\abdul\anaconda3\envs\fyp_base_paper_2\lib\site-packages\sklearn\metrics\_ranking.
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y:1670: RuntimeWarning: Degrees of freedom <= 0 for slice.
    var = nanvar(a, axis=axis, dtype=dtype, out=out, ddof=ddof,

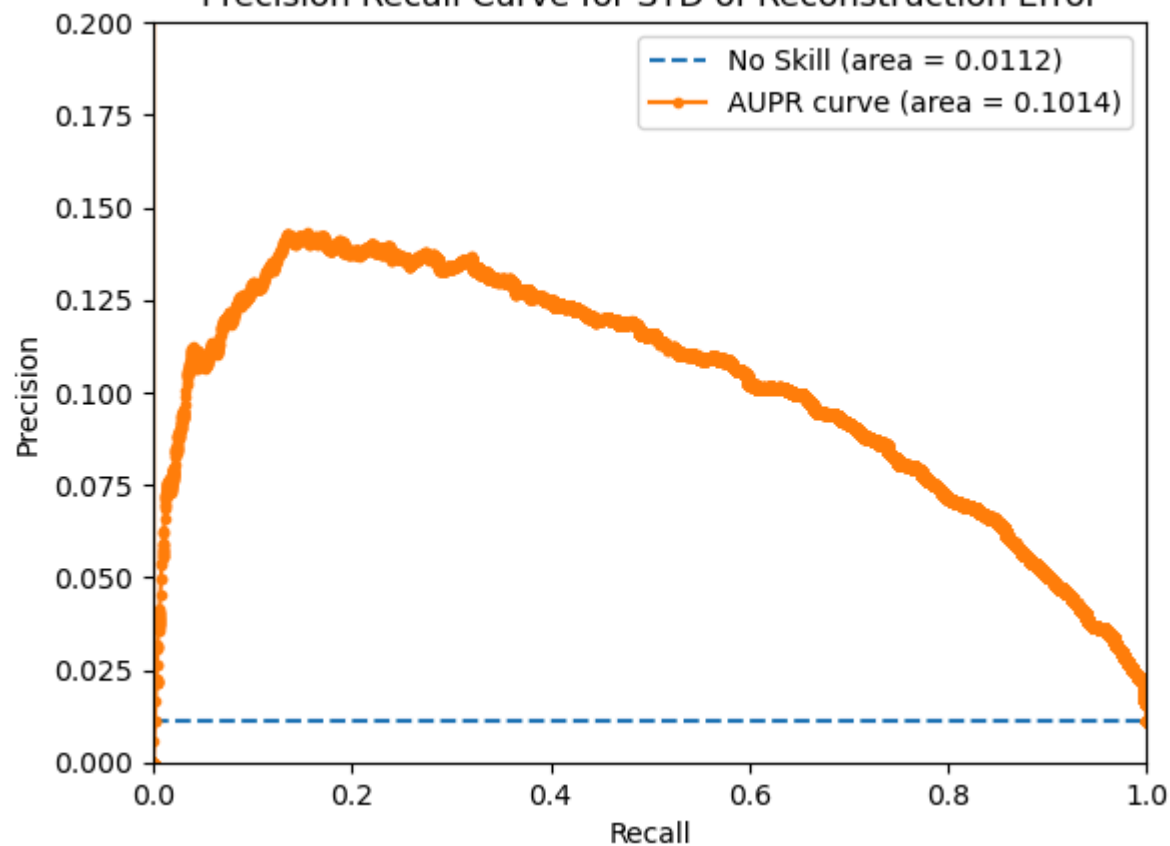
```

()

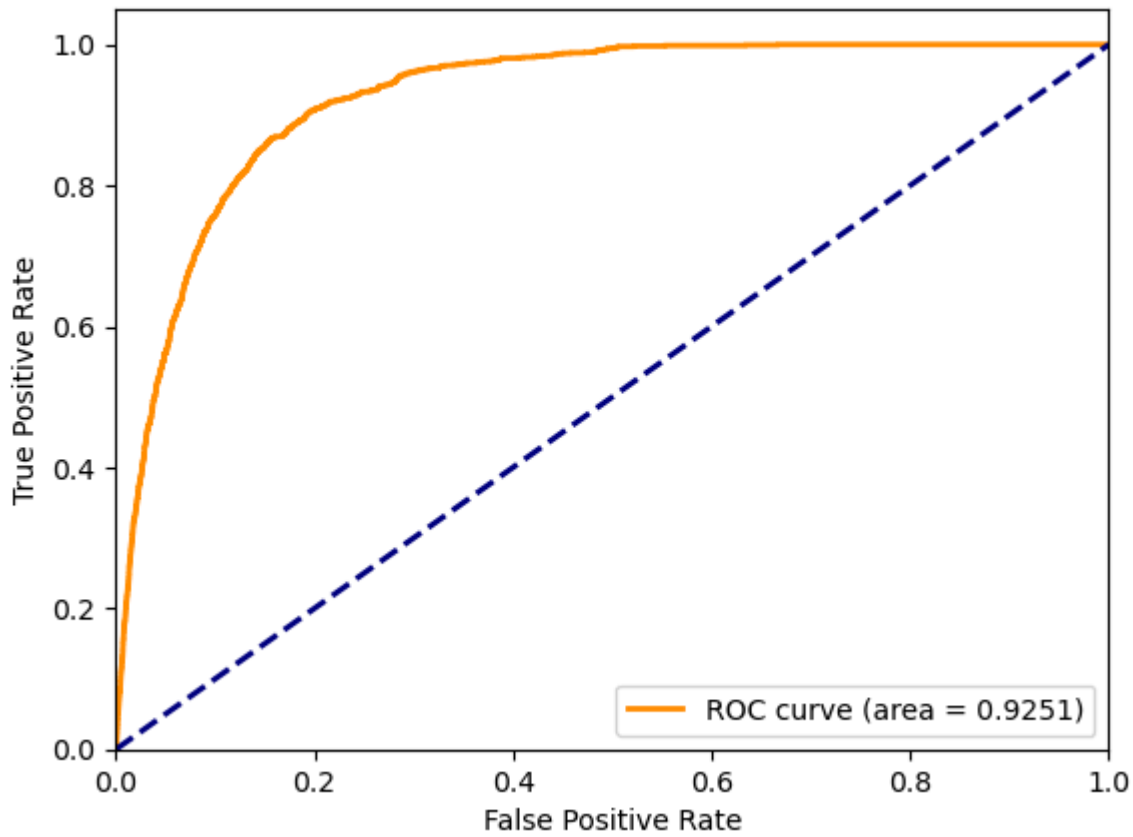
Receiver Operating Characteristic for STD of Reconstruction Error



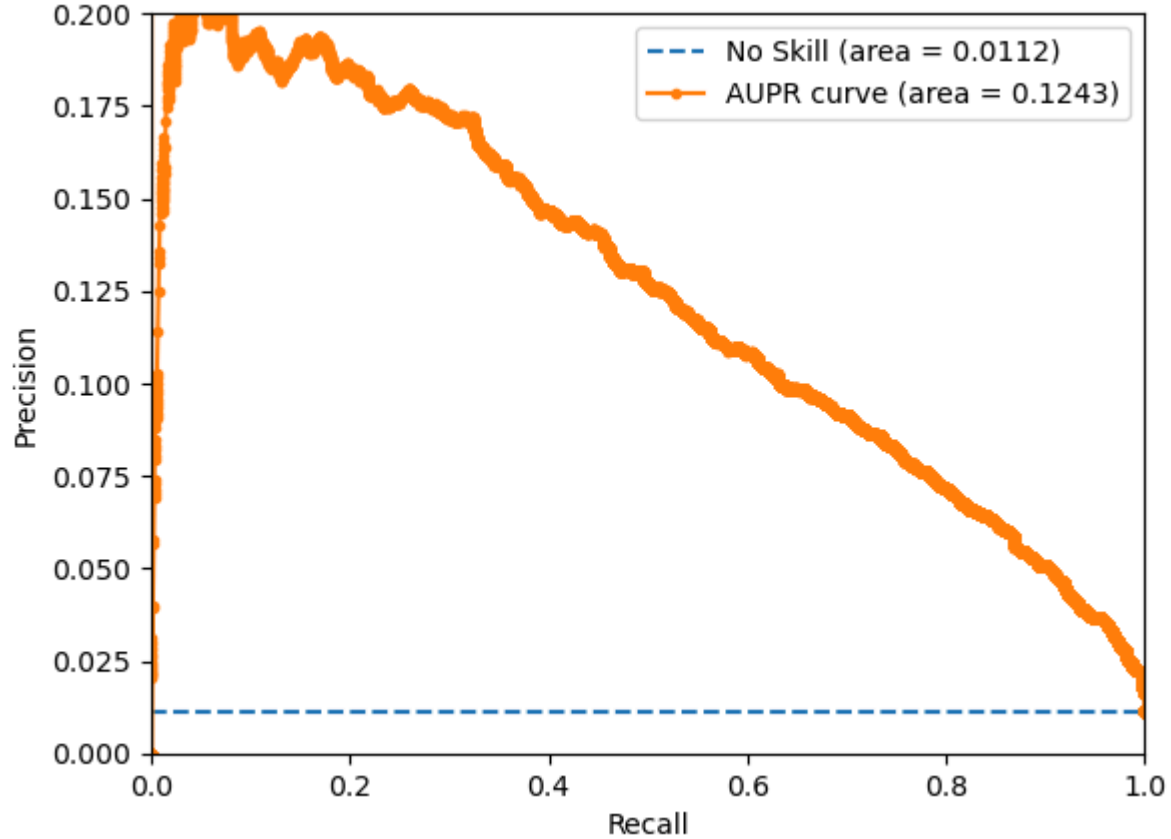
Precision Recall Curve for STD of Reconstruction Error



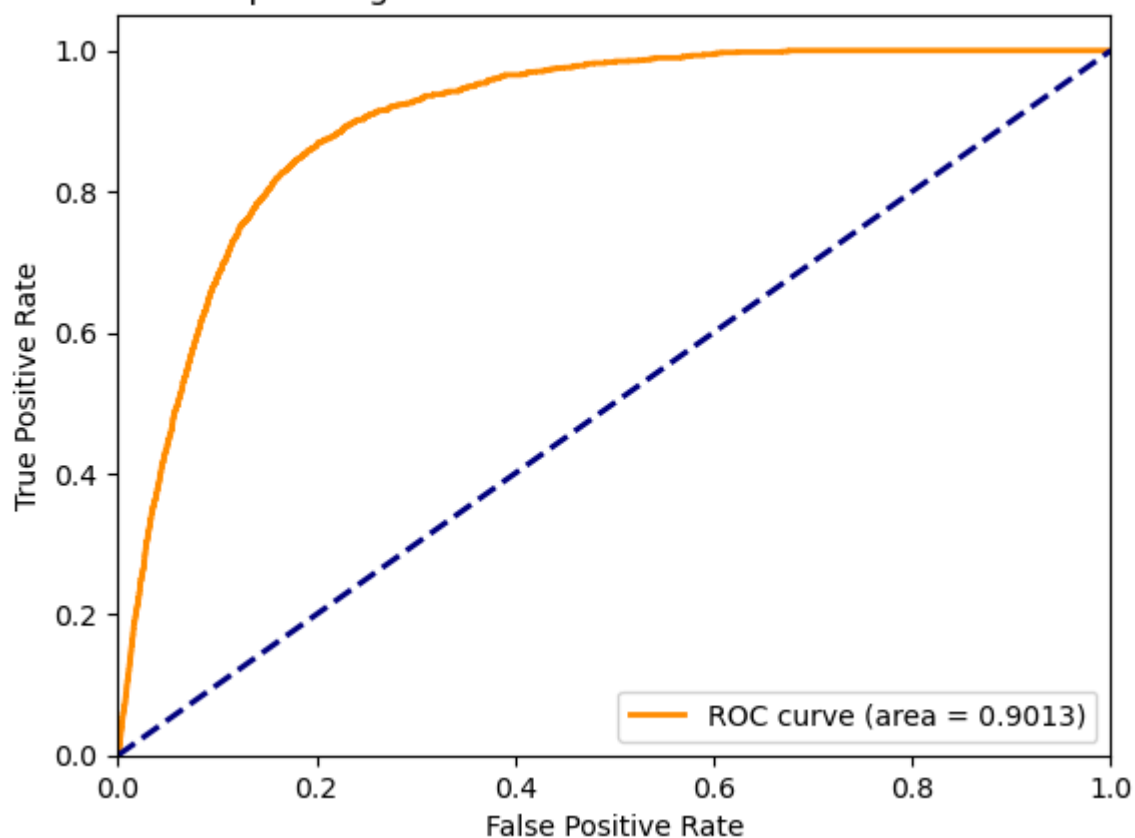
Receiver Operating Characteristic for Mean of Reconstruction Error



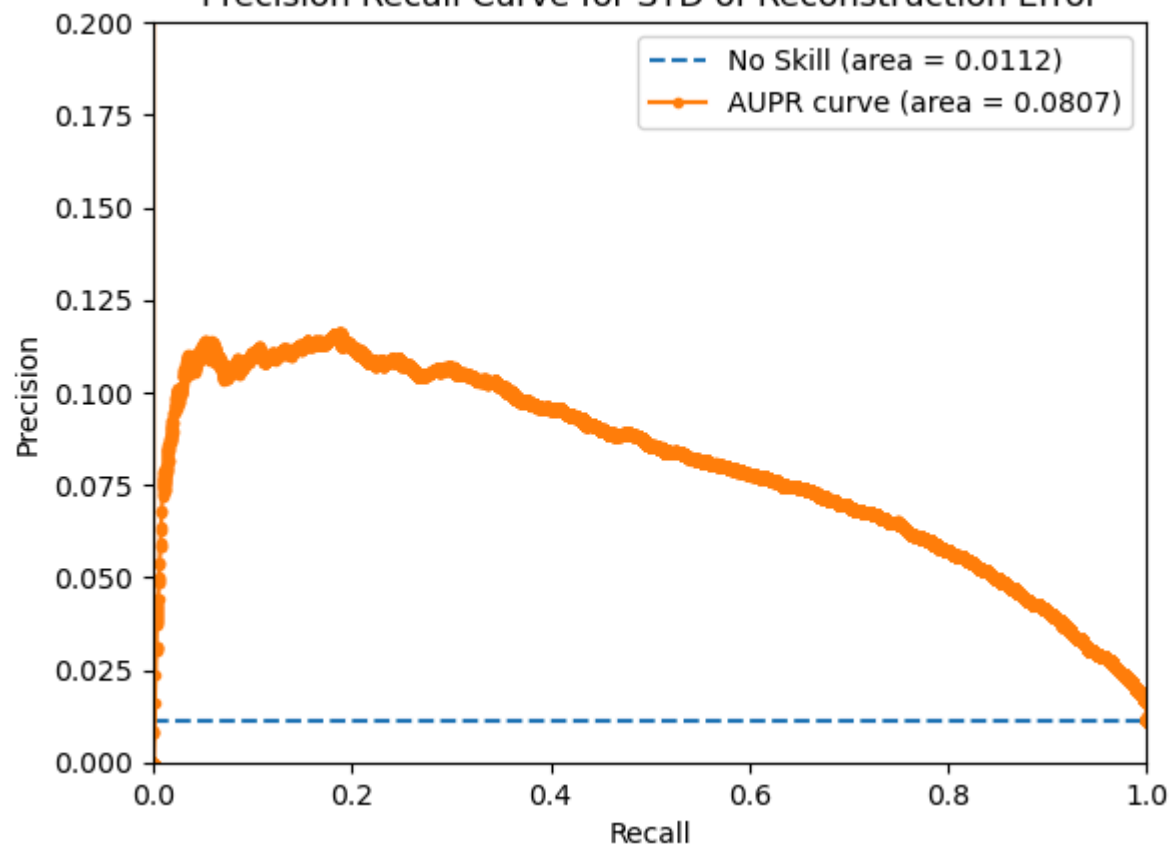
Precision Recall Curve for Mean of Reconstruction Error



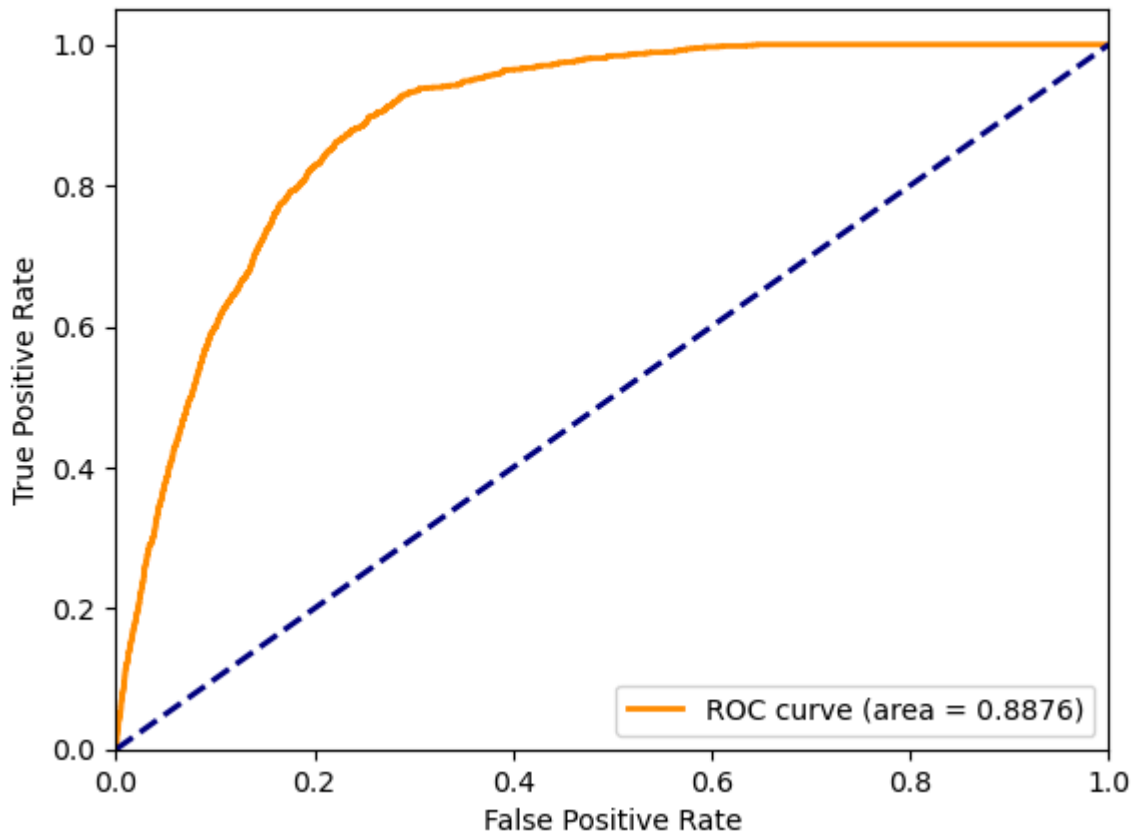
Receiver Operating Characteristic for STD of Reconstruction Error



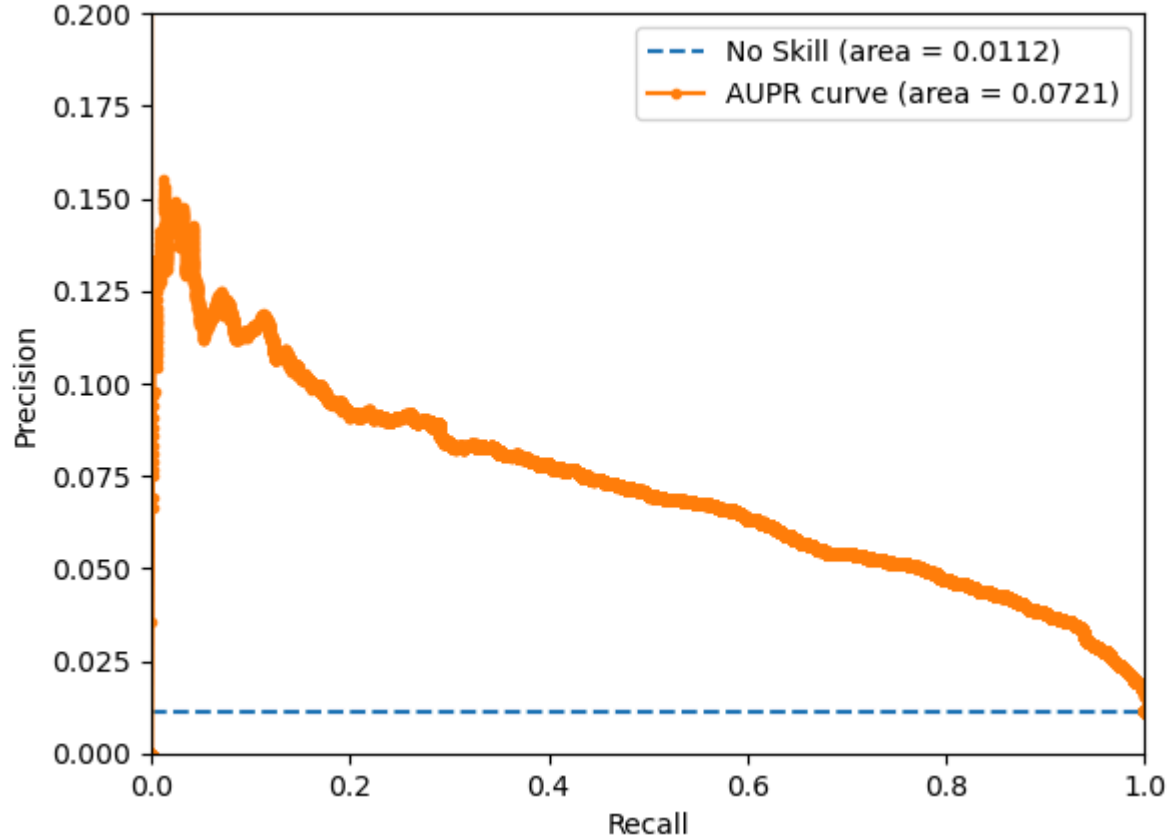
Precision Recall Curve for STD of Reconstruction Error



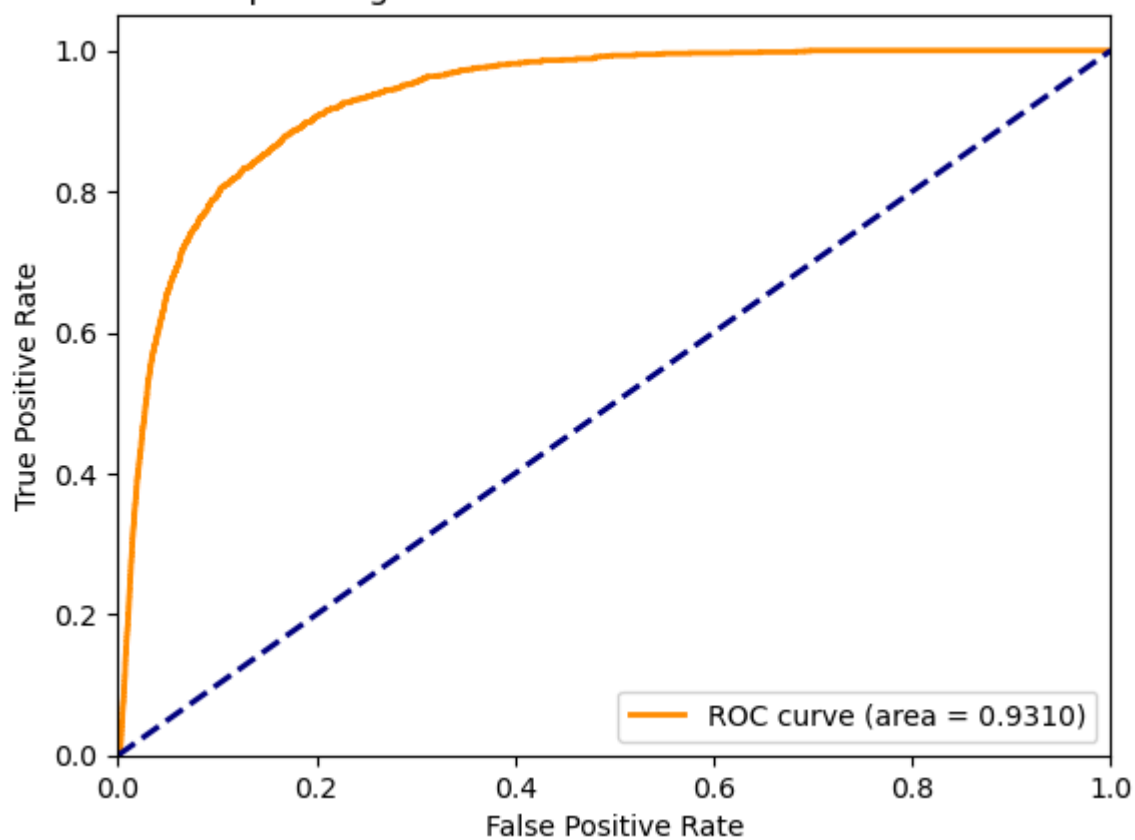
Receiver Operating Characteristic for Mean of Reconstruction Error



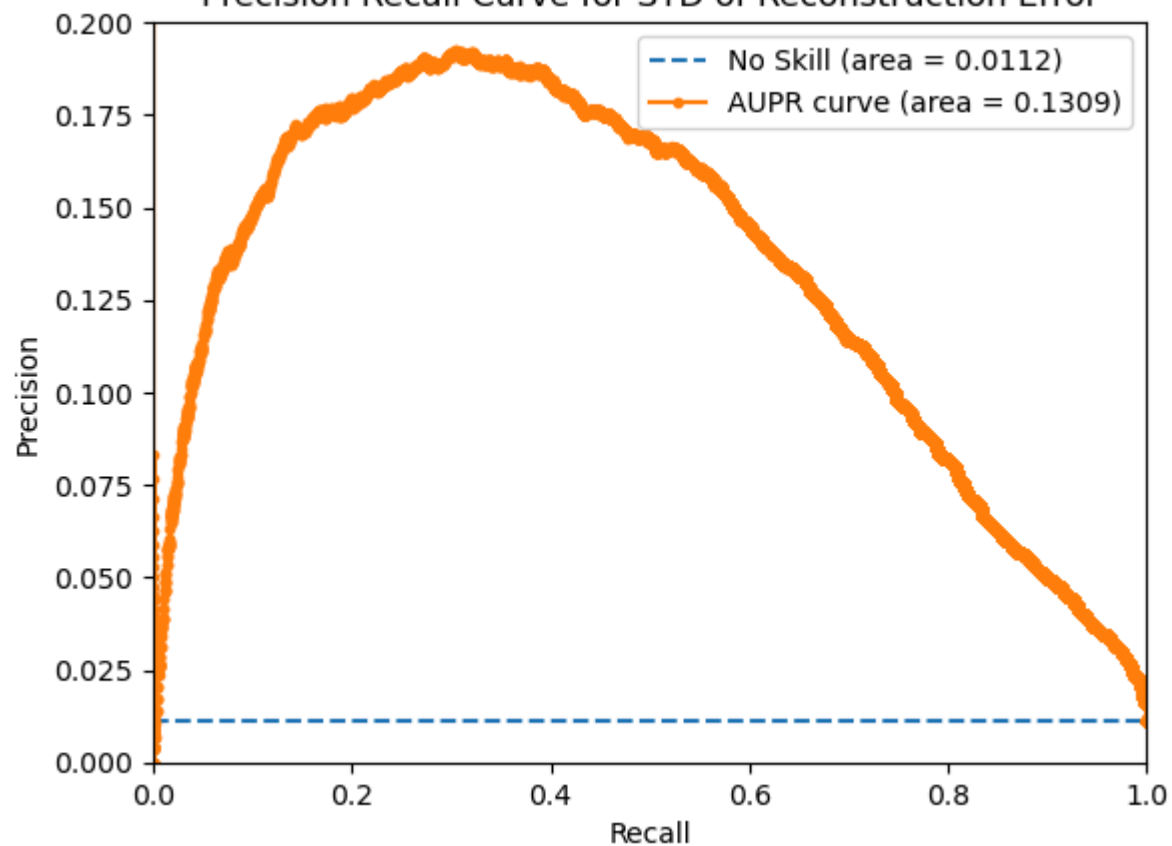
Precision Recall Curve for Mean of Reconstruction Error



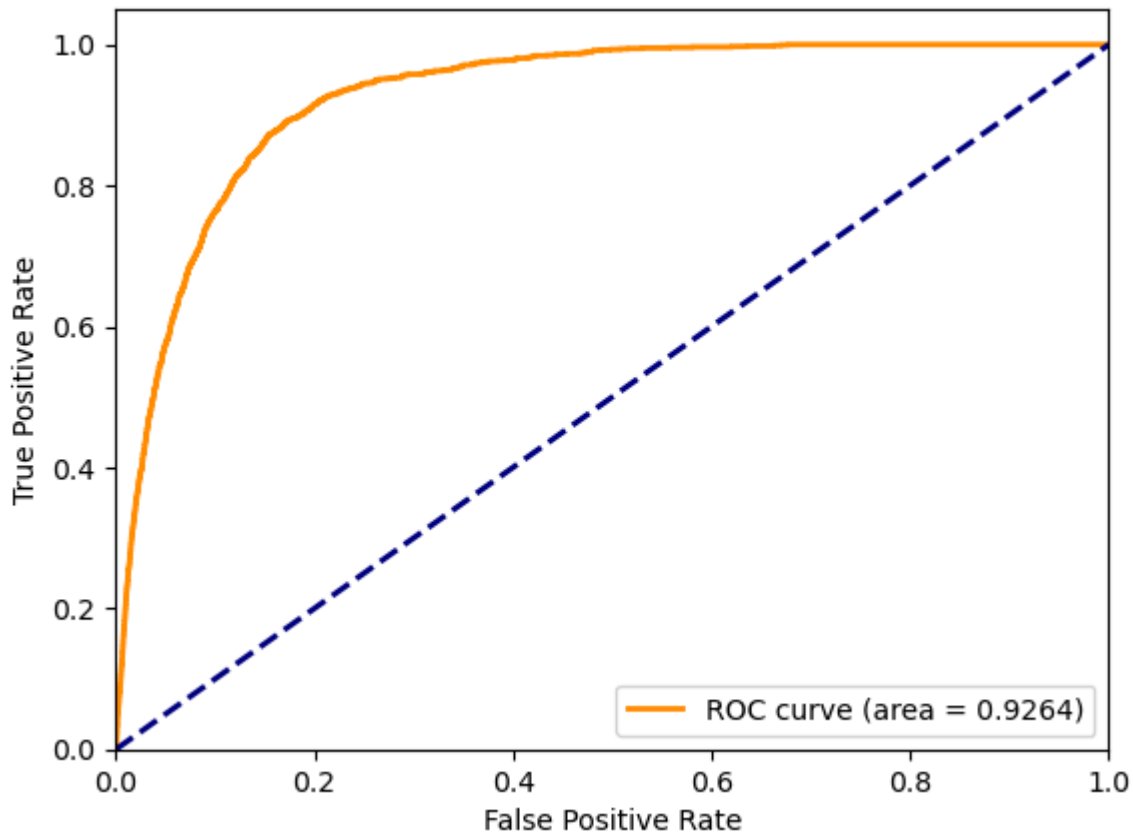
Receiver Operating Characteristic for STD of Reconstruction Error



Precision Recall Curve for STD of Reconstruction Error



Receiver Operating Characteristic for Mean of Reconstruction Error



Precision Recall Curve for Mean of Reconstruction Error

