```
+----------+----------+--------------------+--------------------+
| Metric   | Clean    | No Defense Attack   | w/ Defense Attack  |
+==========+==========+====================+====================+
| Loss     | 0.000562 | 3.07               | 0.00315            |
+----------+----------+--------------------+--------------------+
| Accuracy | 100%     | 25%                | 100%               |
+----------+----------+--------------------+--------------------+
```

Example Misclassifications:

```
------------------------------------------------------------
No misclassified images for stage: Clean
Attack: fgsm_pgd_attack
Dataset: EMNIST
Training Epochs: 10
Trained Clean Images: 64
Test Images: 625
Accuracy: 1.00
Precision: 1.00
Recall: 1.00
F1-score: 1.00
ROC AUC score is not defined for a single class.
------------------------------------------------------------


------------------------------------------------------------
Number of misclassified images for No Defense Attack: 48
Attack: fgsm_pgd_attack
Dataset: EMNIST
Training Epochs: 10
Adversarial Training Images: 60
Test Images: 625
Accuracy: 0.25
Precision: 0.76
Recall: 0.27
F1-score: 0.40
ROC AUC Score: 1.00
------------------------------------------------------------

Misclassifications:
0 -> 6: 5
0 -> 5: 6
0 -> 8: 14
0 -> 9: 17
0 -> 3: 2
0 -> 4: 1
0 -> 2: 2
0 -> 7: 1
```
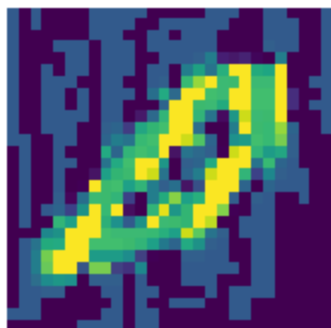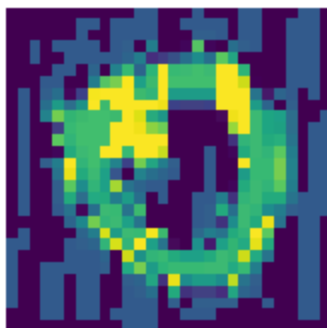
0 -> 6

0 -> 5

0 -> 8

0 -> 6

0 -> 9

0 -> 8

0 -> 6

0 -> 9

0 -> 8

0 -> 9

0 -> 9

0 -> 8

0 -> 8

0 -> 9

0 -> 9

0 -> 8

0 -> 8

0 -> 3

0 -> 8

0 -> 9

0 -> 4

0 -> 9

0 -> 9

0 -> 8

0 -> 8

0 -> 6

0 -> 5

0 -> 9
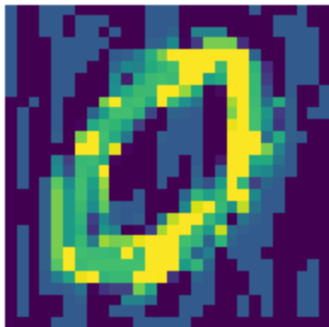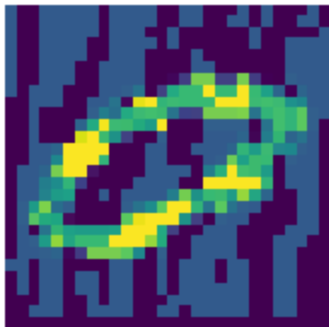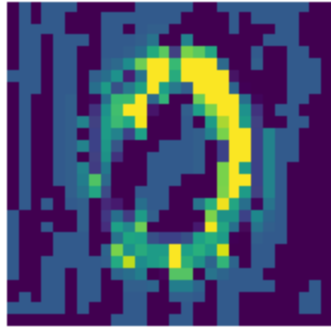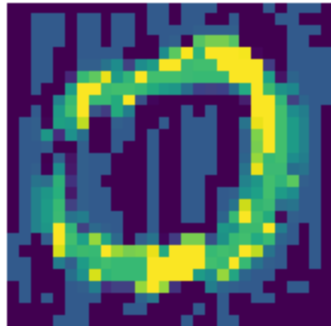
0 -> 9

0 -> 8

0 -> 9

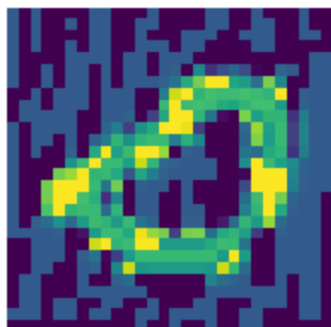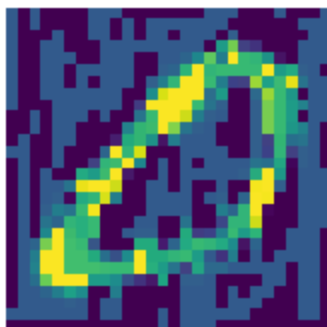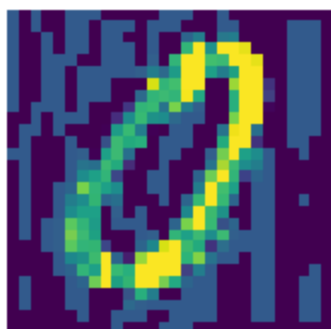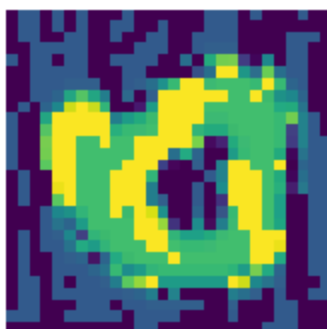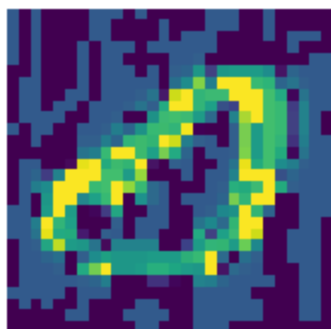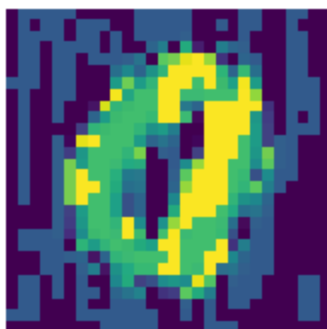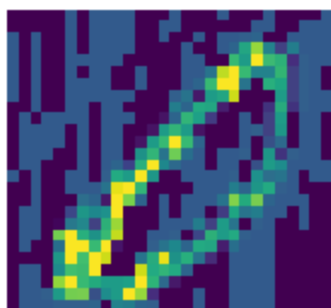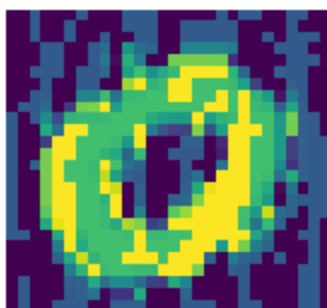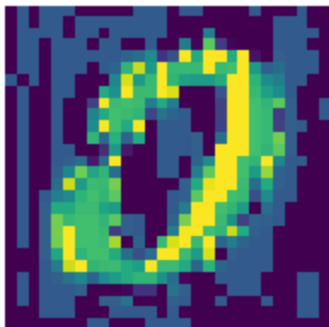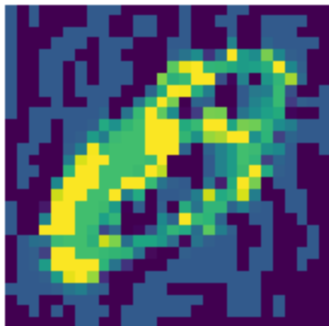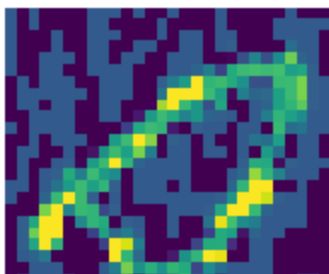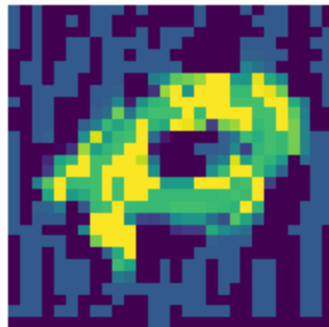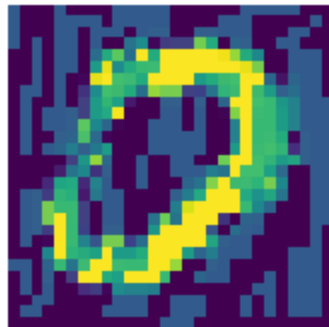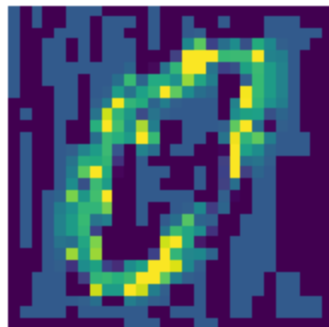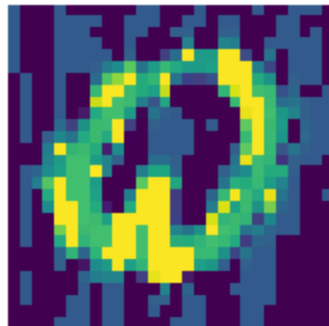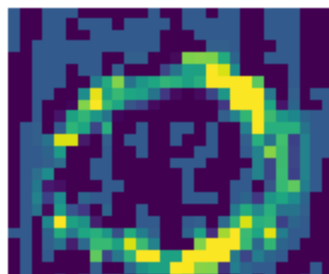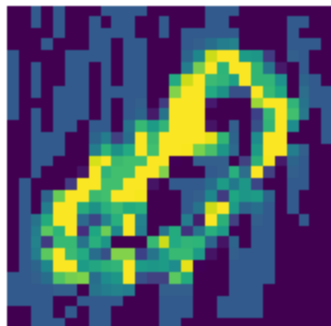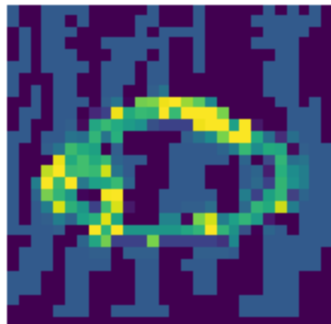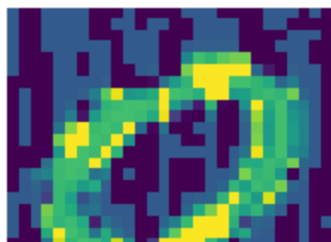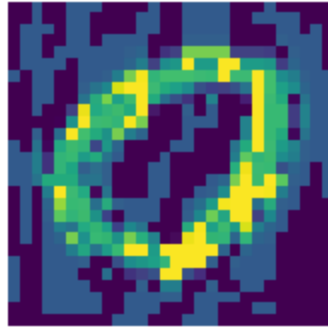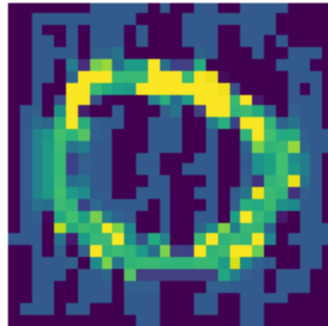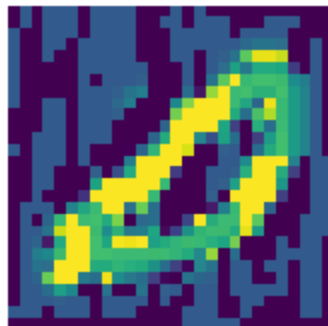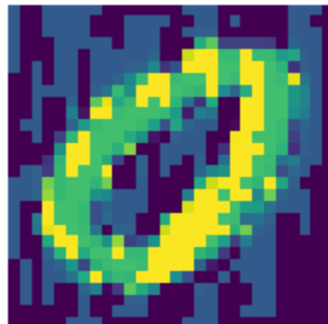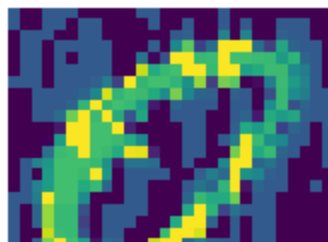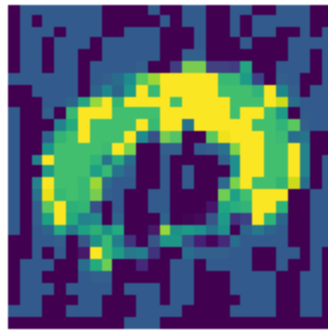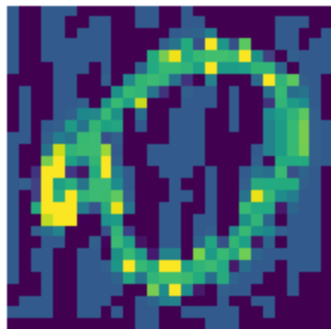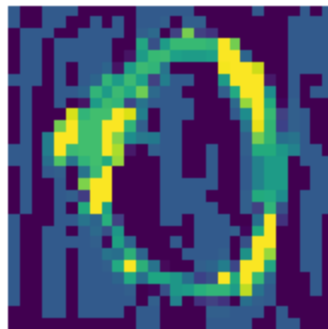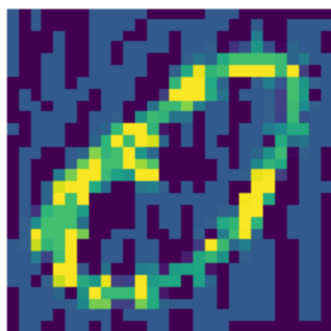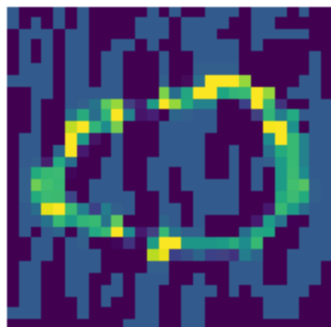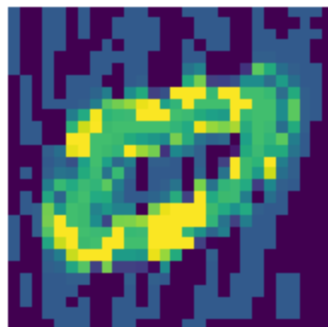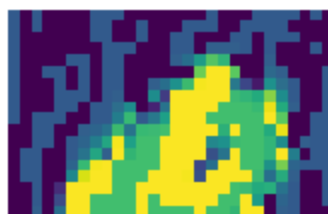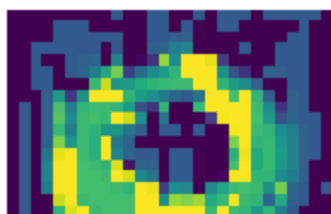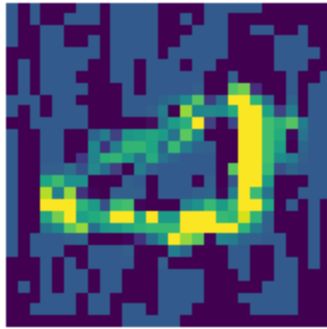

0 -> 6
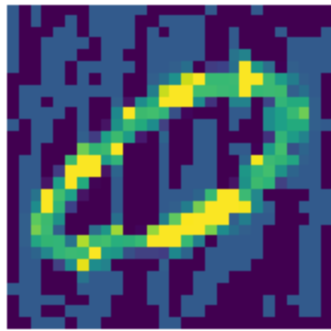
0 -> 5

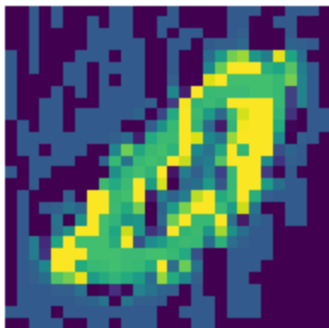
0 -> 5

0 -> 8

0 -> 9

0 -> 2
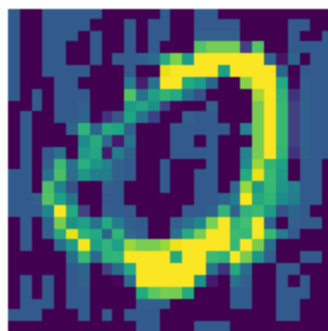
0 -> 7

0 -> 5

0 -> 8

0 -> 9

0 -> 3
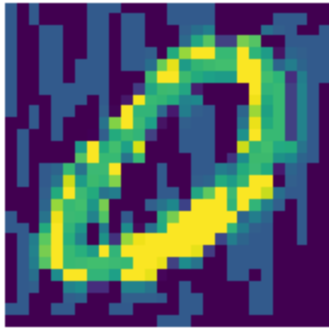
0 -> 2

0 -> 9

0 -> 5
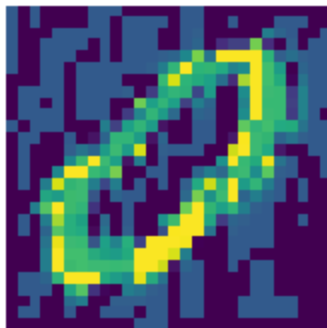
0 -> 9
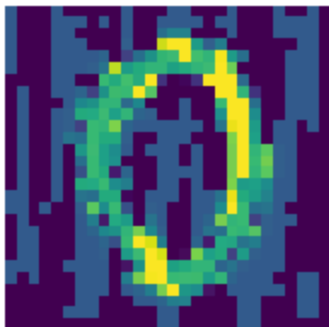
0 -> 9

0 -> 8


```
----------------------------------------------------------
No misclassified images for stage: w/ Defense Attack
Attack: fgsm_pgd_attack
Dataset: EMNIST
Training Epochs: 10
Retrained Clean and Adversarial Images: 124
```
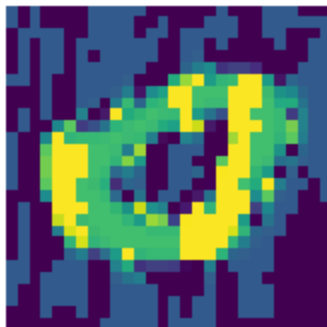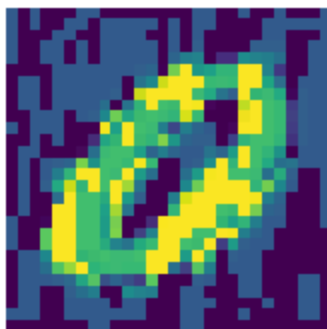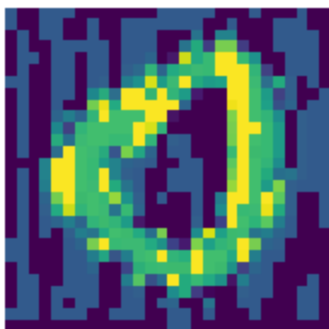
```
Test Images: 625
Accuracy: 1.00
Precision: 1.00
Recall: 1.00
F1-score: 1.00
ROC AUC score is not defined for a single class.
-----------------------------------------------------------
```