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main_train(X_train=X_train_scaled, X_val=X_val_scaled, X_test=X_test_scaled, y_train=y_train, y_val=y_val, y_test=y_test, model_method="svm",
           directory="/content/drive/Shared drives/ECEN 758 project/saved_models_and_data/Normal_Scaled_Data_Models/",
           data_changes_note="", attempt_set=3, param1='rbf', param2=1, param3='scale', param4=1000)

stuff
1
1 SVM kernel=rbf, C=1, gamma=scale Validation Classification Report:
      precision    recall  f1-score   support

0         0.82        0.85        0.84         597
1         1.00        0.98        0.99         608
2         0.83        0.82        0.82         611
3         0.87        0.92        0.90         587
4         0.82        0.84        0.83         627
5         0.96        0.96        0.96         621
6         0.75        0.68        0.71         619
7         0.93        0.96        0.94         550
8         0.97        0.97        0.97         590
9         0.98        0.95        0.97         590

 accuracy          0.89         6000
 macro avg         0.89         6000
 weighted avg      0.89         6000

1 SVM kernel=rbf, C=1, gamma=scale Validation Confusion Matrix:
[[509  0  9 24  1  0 51  0  3  0]
 [ 0 593  1 13  0  0  1  0  0  0]
 [ 8  0 501  4 56  0 42  0  0  0]
 [17  1  2 541 15  0  8  0  3  0]
 [ 1  0 42 19 528  0 33  0  4  0]
 [ 0  0  0  0  0 599  0 18  1  3]
 [84  0 48 15 43  0 423  0  6  0]
 [ 0  0  0  0  0 15  0 529  0  6]
 [ 2  1  4  3  1  0  7  2 570  0]
 [ 0  0  0  0  0  7  0 21  0 562]]

```

```

1 SVM kernel=rbf, C=1, gamma=scale Test Classification Report:
      precision    recall  f1-score   support

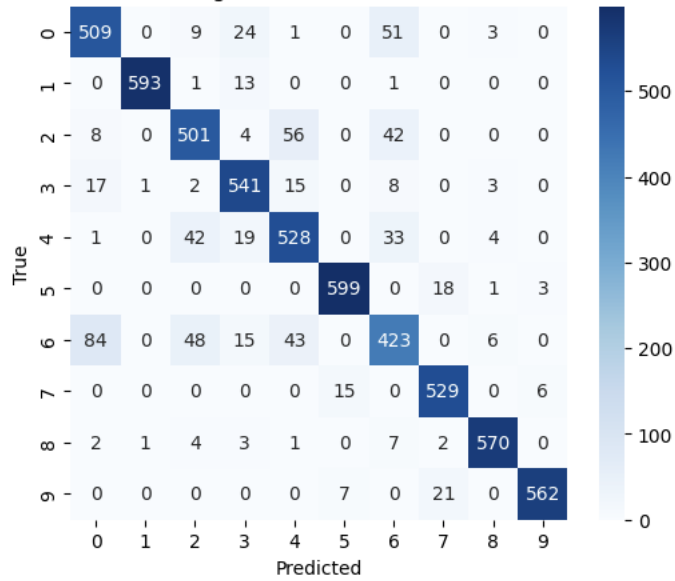
0         0.82        0.86        0.84       1000
1         0.99        0.96        0.98       1000
2         0.79        0.82        0.80       1000
3         0.87        0.89        0.88       1000
4         0.80        0.81        0.81       1000
5         0.96        0.95        0.96       1000
6         0.72        0.65        0.68       1000
7         0.93        0.95        0.94       1000
8         0.97        0.98        0.97       1000
9         0.96        0.95        0.96       1000

 accuracy          0.88       10000
 macro avg         0.88       10000
 weighted avg      0.88       10000

1 SVM kernel=rbf, C=1, gamma=scale Test Confusion Matrix:
[[859  0 12 29  3  2 86  0  9  0]
 [ 3 961  2 26  3  0  5  0  0  0]
 [13  2 819 11 90  0 64  0  1  0]
 [26  3 12 892 31  0 32  0  4  0]
 [ 1  1 89 29 815  0 62  0  3  0]
 [ 0  0  0  1  0 952  0 33  1 13]
 [138  1 105 28 70  0 645  0 13  0]
 [ 0  0  0  0  0 23  0 954  0 23]
 [ 2  1  2  5  2  2  4  5 977  0]
 [ 0  0  0  0  0 12  1 37  0 950]]

```

1 SVM kernel=rbf C=1 gamma=scale Validation Confusion Matrix



1 SVM kernel=rbf C=1 gamma=scale Test Confusion Matrix

