

```

# Example call to train a Decision Tree model
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="decision_tree",
    directory="/content/drive/SharedDrives/ECEN 758 project/saved_models_and_data/Normal_Scaled_Data_Models/",
    data_changes_note="", # Any notes about the data (e.g., "augmented" or "PCA")
    attempt_set=3, # Number of attempts to train and save the model
    param1=10, # max_depth for the Decision Tree
    param2="gini" # criterion for the Decision Tree ("gini" or "entropy")
)

```

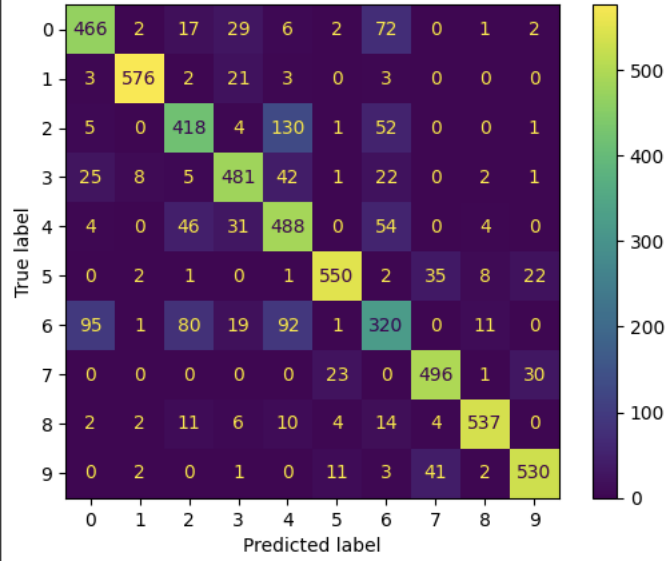
Validation Report (Attempt 1):

	precision	recall	f1-score	support
0	0.78	0.78	0.78	597
1	0.97	0.95	0.96	608
2	0.72	0.68	0.70	611
3	0.81	0.82	0.82	587
4	0.63	0.78	0.70	627
5	0.93	0.89	0.91	621
6	0.59	0.52	0.55	619
7	0.86	0.90	0.88	550
8	0.95	0.91	0.93	590
9	0.90	0.90	0.90	590
accuracy				6000
macro avg				0.81
weighted avg				0.81

Test Report (Attempt 1):

	precision	recall	f1-score	support
0	0.77	0.78	0.78	1000
1	0.99	0.94	0.96	1000
2	0.70	0.63	0.66	1000
3	0.82	0.81	0.82	1000
4	0.60	0.75	0.67	1000
5	0.94	0.88	0.91	1000
6	0.55	0.50	0.52	1000
7	0.86	0.93	0.89	1000
8	0.93	0.89	0.91	1000
9	0.92	0.91	0.91	1000
accuracy				0.80
macro avg				0.81
weighted avg				0.81

Validation Confusion Matrix (Attempt 1)



Test Confusion Matrix (Attempt 1)

