MNIST Binary Classification by LR for 4 vs. 7

Opt. regression coeff. | Opt. regression coeff. | Opt. regression coeff. | Opt. regression coeff.
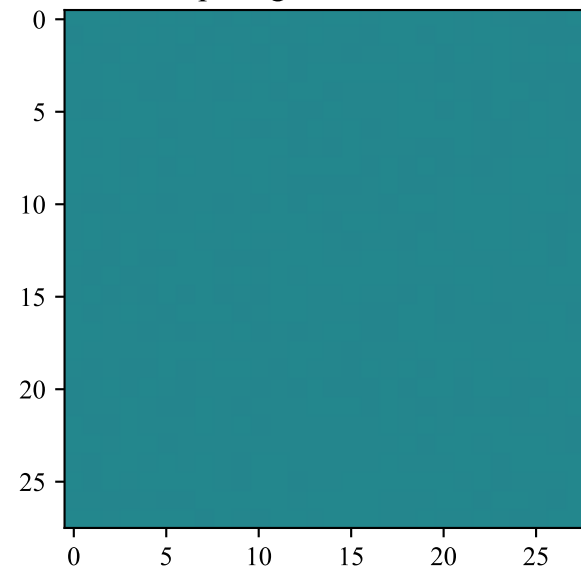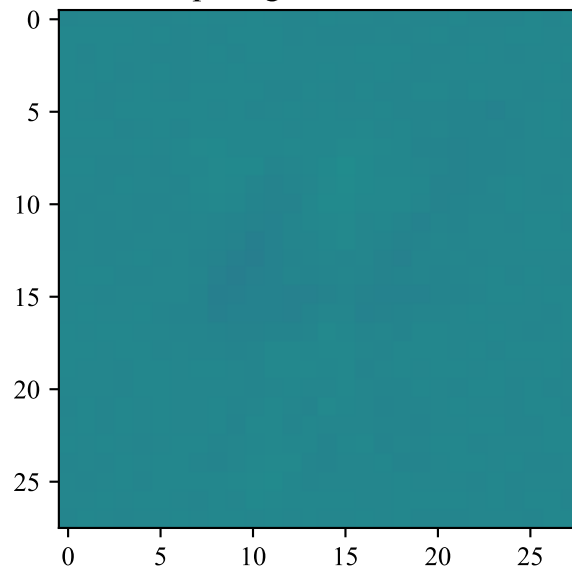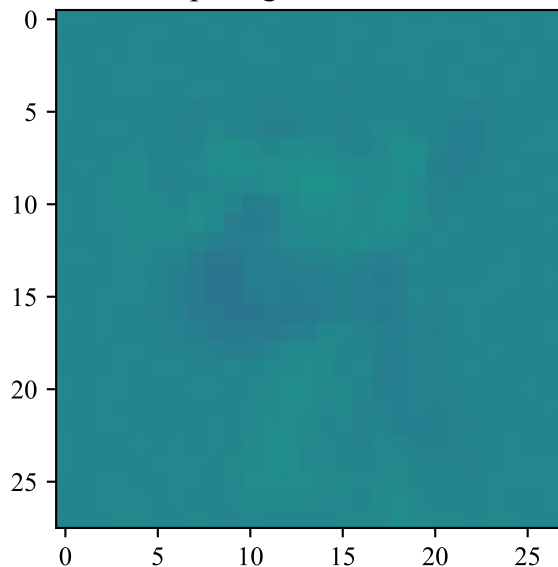
Accuracy = 0.52
Sensitivity = 0.0
Specificity = 1.0
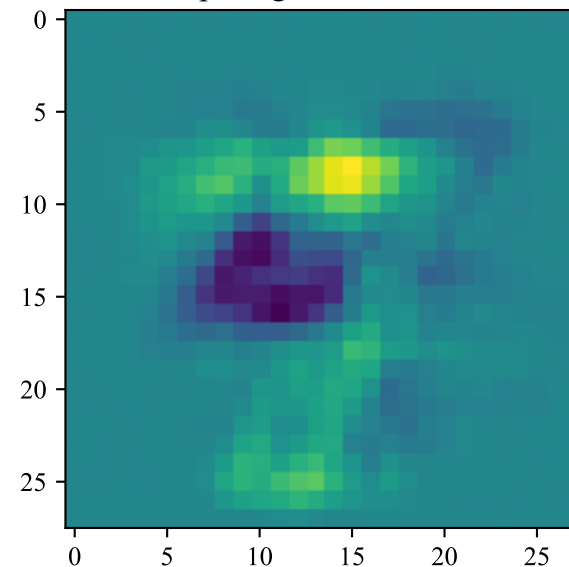Precision = 0.52
Fall_out = 1.0
Miss_rate = 0.0
train size = 1

Accuracy = 0.841
Sensitivity = 0.671
Specificity = 0.997
Precision = 0.767
Fall_out = 0.329
Miss_rate = 0.003
train size = 10

Accuracy = 0.95
Sensitivity = 0.957
Specificity = 0.944
Precision = 0.959
Fall_out = 0.043
Miss_rate = 0.056
train size = 30

Accuracy = 0.959
Sensitivity = 0.93
Specificity = 0.985
Precision = 0.939
Fall_out = 0.07
Miss_rate = 0.015
train size = 100