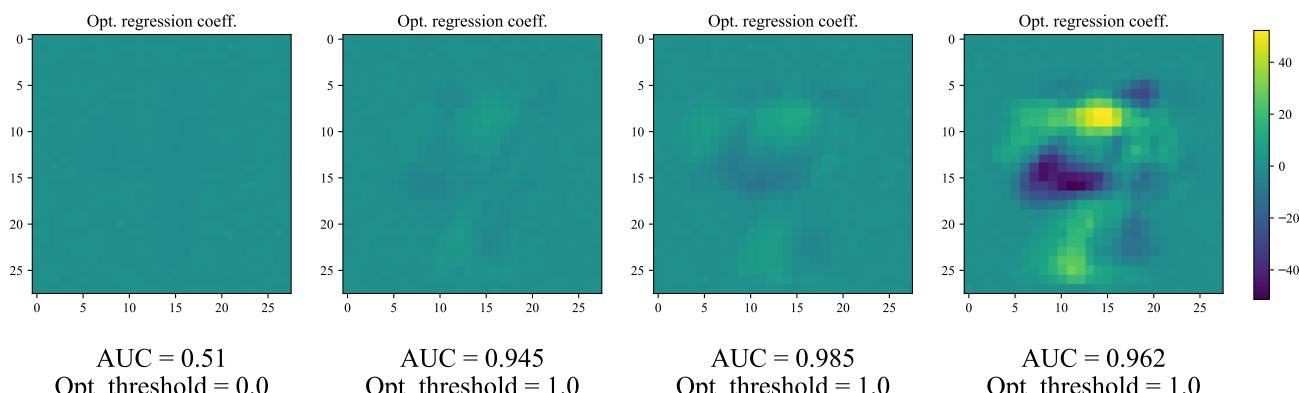MNIST Binary Classification by LR for 4 vs. 7

AUC = 0.51
Opt_threshold = 0.0
Accuracy = 0.555
Sensitivity = 0.227
Specificity = 0.859
Fall_out = 0.773
Miss_rate = 0.141
train size = 1

AUC = 0.945
Opt_threshold = 1.0
Accuracy = 0.915
Sensitivity = 0.909
Specificity = 0.921
Fall_out = 0.091
Miss_rate = 0.079
train size = 10

AUC = 0.985
Opt_threshold = 1.0
Accuracy = 0.966
Sensitivity = 0.977
Specificity = 0.955
Fall_out = 0.023
Miss_rate = 0.045
train size = 30

AUC = 0.962
Opt_threshold = 1.0
Accuracy = 0.954
Sensitivity = 0.932
Specificity = 0.975
Fall_out = 0.068
Miss_rate = 0.025
train size = 100