24-787: Machine Learning and Artificial Intelligence for Engineers
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Homework 4
Due: Feb 17 2024

Concept Questions:

Problem 1
Model 2 represents a better discriminator because the margin's width is maximized.

Problem 2
G should be formulated as option 4 ($G = -y*[x_1,x_2,1]$, $h = -1$).

Problem 3
Model 1 will be faster to evaluate a set of 1000 test points.

Problem 4
The RBF SVM model classifies the data best.

Problem 5
One-versus-one classifier would be faster to train.

Problem 6
For the given model, 4 data points contribute to the loss L.