CSC 4510 – Review Questions for Support Vector Machines

The ppt slides include lots of “quick check” questions. Here are some additional review questions.

1. Given the following two labeled graphs, which classifier would you say has a larger margin? Show the margins and mark the support vectors (try this with some examples similar to those in the slides).

2. Discuss the tradeoff between wide margin and classification errors.

3. What is the point of comparing svm to the majority classifier?

4. Why do we use a kernel function in an SVM?

4. What are the two approaches we discussed for handling multiple-class problems with an SVM?

5. Give an example of a classification problem where sensitivity is more important than specificity.

6. Given a scatterplot of data, state whether it would typically be fit by a linear SVM, a polynomial kernel, or an RBF kernel.