

### Assignment 3

CIS 410/510 Machine Learning, Winter 2009

**due 11:59 pm, Feb 25th**

1. Exercise 4.7 in the textbook.
  2. Exercise 4.9 in the textbook.
  3. Considering the positive and negative instances in 2.4, please build a hyperplane to make them linearly separable in a different set of dimensions. Try to find the hyperplane with the maxim margin in a graph in new dimensions and circle the support vectors you think.
  4. Exercise 6.2 in the textbook.
  5. Exercise 6.3 in the textbook.
  6. Exercise 6.6 in the textbook.
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**To turn in by paper version:** Ask Cheri or Star to put your answers to Dejing Dou's mailbox or submit to him during the class or his office hour.

**To turn in by emails:** Send them to [dou@cs.uoregon.edu](mailto:dou@cs.uoregon.edu). I prefer one pdf file. If you are using Word, you should be able to convert your word file to a pdf file.

**To turn in by Blackboard:** Upload your solution (i.e., one pdf file) to the Blackboard Assignment 3.