- [x] W^T*X + b = 0 is the equation of the hyperplane.
- [x] If X is a point outside of the hyperplane, W^T*X + b indicates the distance of X from the hyperplane. W is unit length.
- [x] W is a vector and orthogonal to the hyperplane.

Incorrect

3. Can Linear Regression be used to solve classification? Justify your answer. *

No. Classification requires a discrete-value output, but linear regression outputs a continuous range

Correct answers:

It can but there will be certain problems. Linear regression cost function is very sensitive to outliers. Hence given some outliers, the line predicted by linear regression can shift toward the outliers. As a result, points that were originally classified correctly by the line would be misclassified once it sees the outliers.

Incorrect 0/2 Points

4. Can a multi-layer neural network without non-linear activation function model non-linear decision boundary? *

- (•) Yes