

Machine Learning

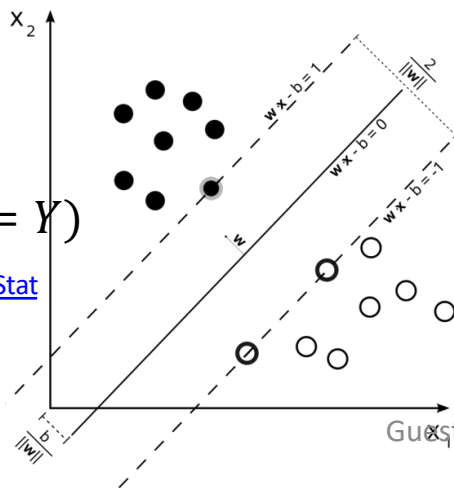
- Input: $\{(X_1, Y_1), (X_2, Y_2), \dots, (X_n, Y_n)\}$, where $X_i \in \mathbb{R}^N, Y_i \in \mathbb{R}^M$
- Object function : $O(Y', Y)$
- Output: $f(X) \rightarrow Y$, such that $f = \operatorname{argmax}_{f' \in F} O(f'(X), Y)$

NOTE: We will only talk about supervised learning.

Classification

$$O(Y', Y) = \delta(Y' = Y)$$

http://en.wikipedia.org/wiki/Statistical_classification



Guest Lecture for Learning to Rank

Regression

$$O(Y', Y) = -||Y' - Y||$$

http://en.wikipedia.org/wiki/Regression_analysis

