Support Vector Machines - FMML 2021 Quiz

Module 4, Lab 4 Quiz

Points: 8/10

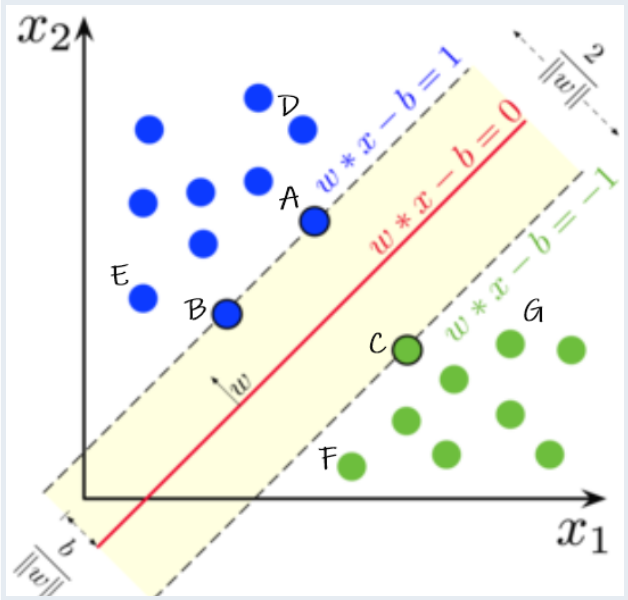
1

What among the below are legitimate shortcomings of SVMs? *
(2 Points)

- [x] SVM algorithm is not suitable for large data sets. ✓
- [ ] SVM is not effective in high dimensional spaces.
- [x] As the support vector classifier works by putting data points, above and below the classifying hyperplane there is no probabilistic explanation for the classification. ✓
- [x] SVM doesn't perform well when there is a lot of noise in the dataset. ✓

2

Which among these would be the support vectors for the classifier? (Choose all that apply) *
(2 Points)



- [x] A
- [x] B
- [x] C
- [ ] D
- [ ] E
- [ ] G

3

SVMs optimize for maximum distance along: *
(2 Points)

- (•) Perpendicular line from support vectors and the decision boundary ✓
- ( ) Along the y-axis
- ( ) Along the x-axis

4

The perpendicular distance of all the support vectors from the decision boundary maximum margin classifier is: *
(2 Points)

- (●) Identical ✓
- ( ) Can be slightly different
- ( ) Can be wildly different
- ( ) Can't comment

5

The Kernel-trick: *
(2 Points)

- ( ) projects the input points to a higher dimension ✓
- (●) projects the input points to a lower dimension
- ( ) doesn't do any projection
- ( ) None of the above