PracticeQuestion3.md 11/18/2019

CS381 Data Analytic Regression Practice Quizz

Question 1: Which of the following regarding Support Vector Machine (SVM) and Logistic Regression are true?

- 1. SVM finds its optimal model parameters by maximizing the Likelihood functions (i.e. the probability of the training data)
- 2. Logistic Regression finds its optimal model parameters by using the maximizing the margin between the predictions and the observed data.
- 3. The difference between Soft margin and Hard margin is that soft margin allows some mis-classification some data points.
- A. Only 1
- B. Only 2
- C. Only 3
- D. 1 and 2
- E. 2 and 3

Answers: C

Question 2: What are support vectors?

Answer: The support vectors are the vectors of the data points that are closest to the hyperplane. They define the hyperplane.

Question 3: What is the margin in a SVM?

Answer: Margin is maximum width of the band that can be drawn separating the support vectors of the two classes.