FLIP ROBO

MACHINE LEARNING

In Q1 to Q11, only one option is correct, choose the correct option:

1. Which of the following methods do we use to find the best fit line for data in Linear Regression?
   Answer:- Least Square Error

2. Which of the following statement is true about outliers in linear regression?
   Answer: Linear regression is sensitive to outliers

3. A line falls from left to right if a slope is_____?

   Answer:- Negative

4. Which of the following will have symmetric relation between dependent variable and independent variable?
   Answer:- Both of them

5. Which of the following is the reason for over fitting condition?
   Answer:- Low bias and high variance

6. If output involves label then that model is called as:
   Answer:- Predictive modal

7. Lasso and Ridge regression techniques belong to_____?

   Answer:- Regularization

8. To overcome with imbalance dataset which technique can be used?
   Answer:- Cross validation

9. The AUC Receiver Operator Characteristic (AUCROC) curve is an evaluation metric for binary classification problems. It uses_____to make graph?
   Answer:- TPR and FPR

10. In AUC Receiver Operator Characteristic (AUCROC) curve for the better model area under the curve should be less.
    Answer:- False

11. Pick the feature extraction from below:
    Answer:- Apply PCA to project high dimensional data

In Q12, more than one options are correct, choose all the correct options:

12. Which of the following is true about Normal Equation used to compute the coefficient of the Linear Regression?

    B) It becomes slow when number of features is very large.
    D) It does not make use of dependent variable.

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Q13 and Q15 are subjective answer type questions, Answer them briefly.

E) Explain the term regularization?

Ans:- The word regularize means to make things regular or acceptable. This is exactly why we use it for. Regularizations are techniques used to reduce the error by fitting a function appropriately on the given training set and avoid overfitting.

F) Which particular algorithms are used for regularization?

Ans:- Ridge regression is a regularization technique, which is used to reduce the complexity of the model. It is also called as L2 regularization. In this technique, the cost function is altered by adding the penalty term to it. The amount of bias added to the model is called Ridge Regression penalty.

Lasso Regreesion or L1 regularization.

G) Explain the term error present in linear regression equation?

Ans:- Linear regression most often uses mean-square error (MSE) to calculate the error of the model. MSE is calculated by: measuring the distance of the observed y-values from the predicted y-values at each value of x; squaring each of these distances; calculating the mean of each of the squared distances.