

Machine Learning

1. Which of the following methods do we use to find the best fit line for data in Linear Regression? Which of the following methods do we use to find the best fit line for data in Linear Regression?

Ans- Least Square Error

2. Which of the following statement is true about outliers in linear regression?

Ans- linear regression is not sensitive to outliers

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

Ans- Negative

4. Which of the following will have symmetric relation between dependent variable and independent variable?

Ans- Correlation

5. Which of the following is the reason for over fitting condition?

Ans- Low bias and high variance

6. If output involves label then that model is called as:

Ans- Predictive Model

7. Lasso and Ridge regression techniques belong to _____?

Ans- Regularization

8. To overcome with imbalance dataset which technique can be used?

Ans- SMOTE

9. The AUC Receiver Operator Characteristic (AUCROC) curve is an evaluation metric for binary classification problems. It uses _____ to make graph?

Ans- TPR and FPR

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

Ans- False

11. Pick the feature extraction from below:

Ans- Apply PCA to project high dimensional data

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

Ans- A) We don't have to choose the learning rate. B) It becomes slow when number of features is very large. C) We need to iterate.

13. Explain the term regularization?

Ans- Regularization refers to the technique that are used to calibrate machine learning model in order to minimize the adjusted loss function and prevent over-fitting and under-fitting. Using Regularization we can fit our machine learning model appropriately on a given test set and hence reduces the errors in it.

There are 2 main types of Regularization techniques:

- Ridge Regularization: It modifies the over fitted and under fitted models by adding the penalty equivalent to the sum of the squares of the magnitude of coefficients
- Lasso Regularization: It modifies the over fitted and under fitted models by adding the penalty equivalent to the sum of the absolute value of coefficient.

14. Which particular algorithms are used for regularization?

Ans- 1. Ridge Regression 2. LASSO (Least Absolute Shrinkage and Selection Operator) Regression
3. Elastic- Net Regression

15. Explain the term error present in linear regression equation?

Ans- Error is the difference between the actual value and predicted value and the goal is to reduce this difference