

Machine Learning-1

Q1. Which of the following methods do we use to find the best fit line for data in Linear Regression?

Answer: A) Least Square Error

Q2. Which of the following statement is true about outliers in linear regression?

Answer: A) Linear regression is sensitive to outliers

Q3. A line falls from left to right if a slope is _____?

Answer: A) Positive

Q4. Which of the following will have symmetric relation between dependent variable and independent variable?

Answer: B) Correlation

Q5. Which of the following is the reason for over fitting condition?

Answer: C) Low bias and high variance

Q6. If output involves label then that model is called as:

Answer: B) Predictive model

Q7. Lasso and Ridge regression techniques belong to _____?

Answer: D) Regularization

Q8. To overcome with imbalance dataset which technique can be used?

Answer: D) SMOTE

Q9. The AUC Receiver Operator Characteristic (AUCROC) curve is an evaluation metric for binary classification problems. It uses _____ to make graph?

Answer: A) TPR and FPR

Q10. In AUC Receiver Operator Characteristic (AUCROC) curve for the better model area under the curve should be less.

Answer: B) False

Q11. Pick the feature extraction from below:

Answer: B) Apply PCA to project high dimensional data

Q12. Which of the following is true about Normal Equation used to compute the coefficient of the Linear Regression?

Answer: A) We don't have to choose the learning rate & B) It becomes slow when number of features is very large.

Q13. Explain the term regularization?

Answer: Regularization is a technique used to reduce the errors by fitting the function appropriately on the given training set and avoid over-fitting.

The commonly used regularization techniques are:

1. L1 regularization
2. L2 regularization
3. Dropout regularisation

A regression model which uses L1 regularisation technique is called LASSO (Least Absolute Shrinkage and Selection Operator) regression.

A regression model that uses L2 regularisation technique is called Ridge regression.

Dropout is a regularization technique used in neural networks. It prevents complex co-adaptations from other neurons.

Q14. Which particular algorithms are used for regularization?

Answer: There are mainly three algorithms used in regularisation:

1. L1 regularization
2. L2 regularization
3. Dropout regularisation

Q15.

Answer: The error term is the stuff that isn't explained by the model. suppose you are predicting the weight of adult human males based on their height. Well, height is certainly related to weight - taller people tend to be heavier - but the model won't be perfect because there is a range of weights at each height. The error is the difference between the predicted value and the actual value.