

MACHINE LEARNING

1. A. Least Square Error
2. A. Linear Regression is sensitive to outliers
3. B. Negative
4. A. Regression
5. C. Low bias and high variance
6. B. Predictive model
7. D. Regularization
8. D. SMOTE
9. Sensitivity and Specificity
10. B. False
11. A. Construction bag of words from a email
12. A) We don't have to choose the learning rate.

B) It becomes slow when number of features is very large
13. Regularization is a technique used to reduce the errors by fitting the function appropriately on the given training set and avoid overfitting.
There are mainly 3 types of regularization techniques
They are:
 1. L1 Regularization or Lasso regularization
 2. L2 Regularization or Ridge regularization
 3. Dropout

14. The most commonly used regularization techniques are:

- i. L1 regularization
- ii. L2 regularization
- iii. Drop out regularization
- iv. Early stopping and
- v. Data augmentation

15. A linear regression line has an equation of the form of

$$y = a + bx + e$$

where

x = explanatory variable

y = dependent variable

b = slope of the line

a = intercept

e = error

The term error is the difference between the actual value and the predicted value.