Machine Learning Assignment

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Answers

1. A) Least Square method
   Least square error method is used to find the best fit line for data in Linear Regression?
2. A) Linear regression is sensitive to outliners.
3. B) Negative
   A line raisess from left to right if a slope is positive and when it falls slope is negative.
4. B)
   Correlation will have symmetric relation between dependent variable and independent variable
5. C) Low bias and high variance
   Low bias and high variance is the reason for over fitting condition
6. B) Predictive model
   If output involves label then that model is called as predictive model
7. D) Regularization
   Lasso and Ridge regression techniques belong to regularization
8. A) Cross Validation
   To overcome with imbalance dataset cross validation is used.
9. C) Sensitivity and Specificity
   AUC Receiver Operator Characteristic (AUCROC) curve uses Sensitivity and Specificity to make graph.
10. B) False
    AUCROC curve for the better model area under the curve should be greater.
11. A) Construction bag of words from a email
    B) Apply PCA to project high dimensional data
    C) Removing stop words
    Option A,B, C are examples of feature extraction
12. A) We don't have to choose the learning rate.
    B) It becomes slow when number of features is very large.
    Option A,B are true about Normal Equation used to compute the coefficient of the Linear Regression
13. Regularization is important step while building machine learning model to improve the model prediction and reduce the errors by fitting the function on the given training set.
14. The commonly used regularization techniques are:
    L1 regularization – Lasso regularization
    L2 regularization – ridge regularization
    Dropout regularization
15. The error term is the difference between the expected value at a particular time and the actual value that was observed.