

TECHNO MAIN SALT LAKE

(FORMERLY TECHNO INDIA, SALT LAKE)

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Subject Application of Machine Learning in Industries (PCC-AIML 601) Semester 6th

Invigilator's Signature [Signature] Date

1. The two most common supervised tasks are —
Image Recognition and Customer-Churn Analysis.
2. The purpose of a validation set —
After analysing the data through trainset and testing it through test set for multiple times to find the final accuracy validation set is needed.
3. Model parameters for linear regression model —
 - (i) coefficients of the variable.
 - (ii) Loss function i.e. mean squared error (MSE)
 - (iii) Gradient Descent.
4. AUC value of a perfect classifier — ≥ 1
5. out of precision and recall, recall is more important for a spam email detection system.
6. Train-test-split :-
when we get a new dataset we divide the dataset initially into train-test split. i.e. 70-80% of data are kept initially for training and after training the model get tested on the rest 20-30% data. i.e. known as test set. So if we sum up the whole train test theory we get the train test split.
overfitting of training dataset takes place where the train data set executes the number of test dataset underfitting occurs ~~overfitting~~ where the test data set is fitted to overfitting and underfitting of training data.

8. General algorithms that are available to minimize the cost function -
Naïve Bayes algorithm
Random Forest algorithm.
Decision tree.

9. confusion matrix is said to be the generation of matrix data in order to analyse the statistical regression of a data set.

In Classification problem, true negative = 82, false positive = 3,

false negative = 5

true positive = 10,

precision, recall, false negative rate.

10. ROC is a type of curve that is used for perfect classifier, practical classifier and random classifier.