

Cross validation

It helps to validate which parameter combo is working fine and giving best accuracy

Type of cross validation

1. **Holdout Cross-Validation**

- Here training and test data set is divided with some proportion
80:20 or 70:30
- Data will be shuffled and picked for this ratio

2. **K-fold Cross-Validation**

- Here 1st model will be trained in complete data set
- 2nd k number of subset will be used to test the data

4. **Stratified K-fold Cross-Validation**

- Here K number of subset will be taken for training
- All possible combo of data will be kept in one fold that is called stratified

5. **Leave-p-out Cross-Validation**

- Here p is a variable it can be any value, n total number of record in data set. Then n-p records are used for training and remaining p rows are used for testing
- Here all possible p value will be validated

6. **Leave-one-out Cross-Validation**

- Here p=1, n total number of record in data set. Then n-p records are used for training and remaining 1 row is used for testing

6. **Rolling Cross-Validation**

- this helps in time series problem
- consequent subset is used as training set and test set

7. **Monte Carlo Cross-Validation**

- Train and test set is picked randomly