Comparing two modeling techniques

Pros and cons of both models compared

- Naive bayes is a probabilistic classification algorithm which works on the bases of Bayesian theorem of conditional probability which assumes that all features independently contribute to predicting the target variable.
- Where as Xgboost is a supervised learning algorithm which works on the principle of gradient boosting in which weak learners(trees) are sequentially generated and more weight is give to the misclassified instances in the next iteration.
- Modeling on Naive bayes algorithm gave us very low accuracy as compared to Xgboost
- Although Naive bayes took lesser time to train
- Naive bayes works for both numerical and character data input
- whereas Xgboost works for only character data input
- Learning rate can be controlled in Xgboost by parameter tuning
- If new category is there in test data set naive bayes will assign Zero probability to it and won't be able to predict it.
- Naive bayes does not have any mechanism for missing data handling
- Xgboost has an in-built routine to handle missing values.
- Xgboost supports hyper parameter tuning whereas naive bayes does'nt
- Xgboost have built in cross validation mechanism Naive bayes doesn't