

Assignment - 12

= wycompanion 4334

Airs - In the given data, perform the performance reasonizated manage simple Naive Bayes algorithm such as accuracy, errors nate, precious members, TPR, FPR, THE etc. Lusing WERD

\* Theony >

· Naive Bayes Algorithm :

It is a classification technique based on Bruyes theorem with an assurption of independence arrang predictors. In simple terms a Naive Bayes classifier assures that the presence of a particular features in a class is unrelated to the presence of any other features.

Naive Bayes model is easy to build and particularly useful for very large datasets. Along with simplicity, Naive Bayes is known to suspendence even highly sophisticated classification without.

Bayes theorem provides a way of calculating Penterior probability Plats
from P(C), P(X) and P(C/X). P(X) > Likelihood

P(C/X) = P(X/C). P(C) P(C) + Class probability

P(X) P(X) > Predictor prior probability

Advantages :

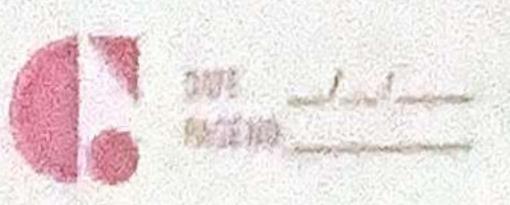
i) It is easy and fast to predict class data set. It also performs well in nulti class prediction

When assumption of independence holds a Noive Bayes classifier performs better compare to the other nodels like logistic regression, and you need less training data.

To perform well in case of contegorical input variables compared to surerical variables.

· bisadiantages:

in training the model will assign yerro (o) probability and will be unable to make a production



in To real life it is almost impossible that we get a set of predictions which are completely setter independent. · Applications: i) Real - time prediction in) Multi- class prediction in Test classification / span filtering I sentiment analysis in Recommendation bystem. \* Leaderien > In this assignment we have implemented and undersated the concept of the Naive Bayes algorithm.