

Naive Bayes theorem

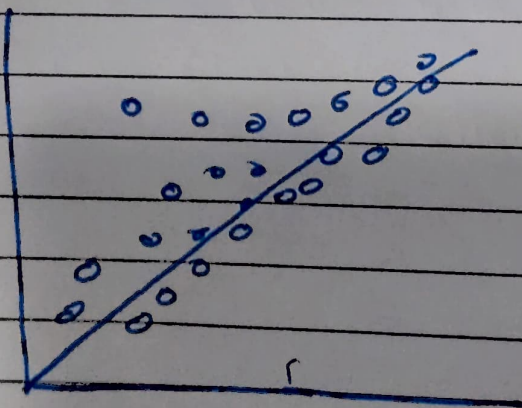
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Calculates probabilities of outcome

also calculates probability for each individual feature

Regression

predicts continuous values
and helps to get the line (can be curve)
of best fit

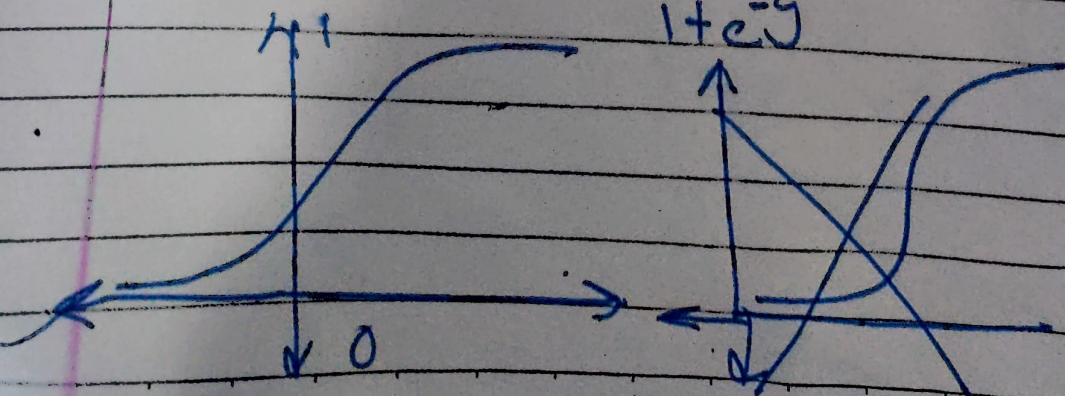


Logistic regression :-

Sigmoid func.

Used for classification tasks

$$S(y) = \frac{1}{1 + e^{-y}}$$



Methods to find the importance of features

CART \rightarrow default

Gini Index ()

yes \swarrow \searrow no

~~binary~~ splits by binary only

ID3 \rightarrow for entropy

entropy

\downarrow

more than

~~more~~ two features

Decision tree classifier

Random Forest Classifier \rightarrow multiple trees

Support Vector Machine

generates hyper plane separates
the type of data

It tries to maximize ~~margin~~
margin i.e. gap between the two data
types

The objects ~~touching~~ touching margin
are called support vectors

early stopping

stops at the best value if it
doesn't improve after few values.

(Iterations)

XGB \rightarrow gradient boosting

highest acc