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COMPS – C31

ML Experiment 3

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ML Experiment - 3

Aim: To Implement CART Algorithm. 11/3/24

Theory:
CART (classification & Regression tree) is a variation of the decision tree Algorithm. It can handle both classification & Regression task. It is a predictive Algorithm used in ML & it Explains how the target variables values can be predicted based on other parameters

CART Algorithm

1) Tree Structure
2) Splitting criteria

$$gini = 1 - \sum_{i=1}^{n} (p_i)^2$$

3) Pruning

Advantages
1) Results are Simplistic
2) Trees are non parametric & non-Linear
3) Trees implicitly perform feature Selection

Disadvantages
1) overfitting
2) High variance
3) Low bias.

Conclusion: Thus we Implement CART Algorithm.

Implementation: