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BSAN 6070

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Random Forest:

Chart, line chart

Description automatically generated

1. Looking at the above visualization, one can see that there is a steady increase in accuracy as the n\_estimators increase. At 500, there is a decline.
2. The decline at 500 would suggest that 450 is the optimal n\_estimator value. The high accuracy compared to the other estimators would support this argument.

AdaBoost:

Chart, line chart

Description automatically generated

1. Looking at the above visualization, one can see that there is a significant increase followed by a gradual decrease in accuracy as the n\_estimators increase. After 100, the decline begins.
2. The decline after 100 would suggest that 100 is the optimal n\_estimator value for this model. The high accuracy compared to the other estimators would support this argument.

Gradient Boost:

Chart, line chart

Description automatically generated

1. Looking at the above visualization, one can see that the value with the highest accuracy is 250. After 250, the accuracy decreases as the estimators increases.
2. The decline after 250 would suggest that 250 is the optimal n\_estimator value for this model. The high accuracy compared to the other estimators would support this argument.

XGB:

Chart, line chart

Description automatically generated

1. Looking at the above visualization, one can see that the value with the highest accuracy is 300. After 300, the accuracy decreases as the estimators increases.
2. The decline after 300 would suggest that 300 is the optimal n\_estimator value for this model. The high accuracy compared to the other estimators would support this argument.