AdaBoost Regression

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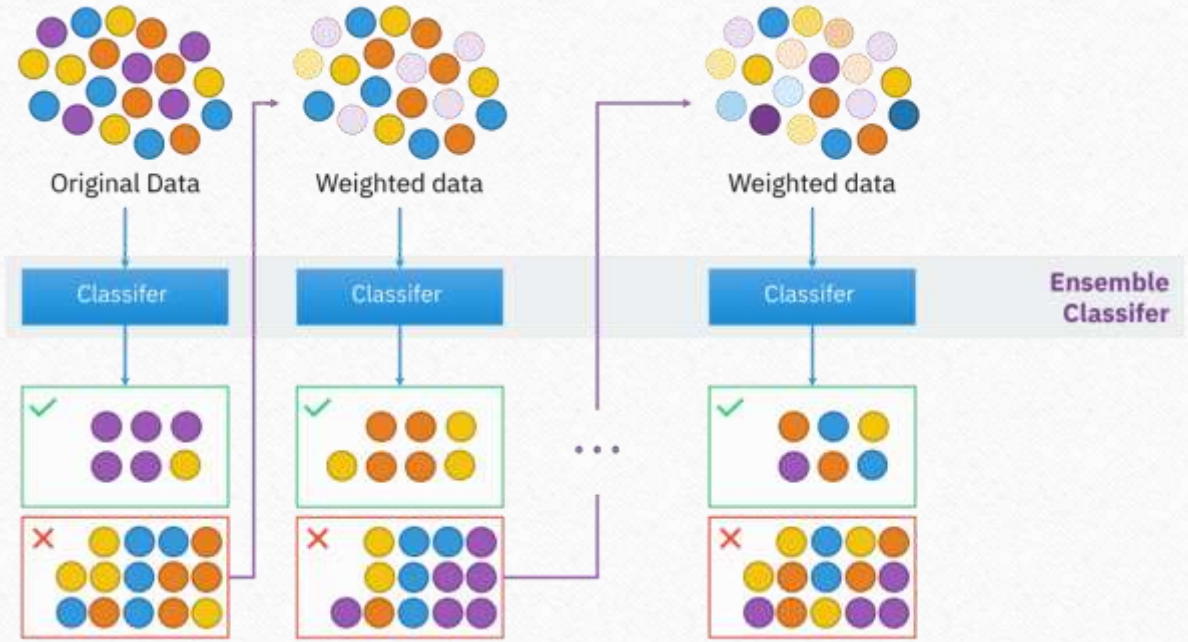
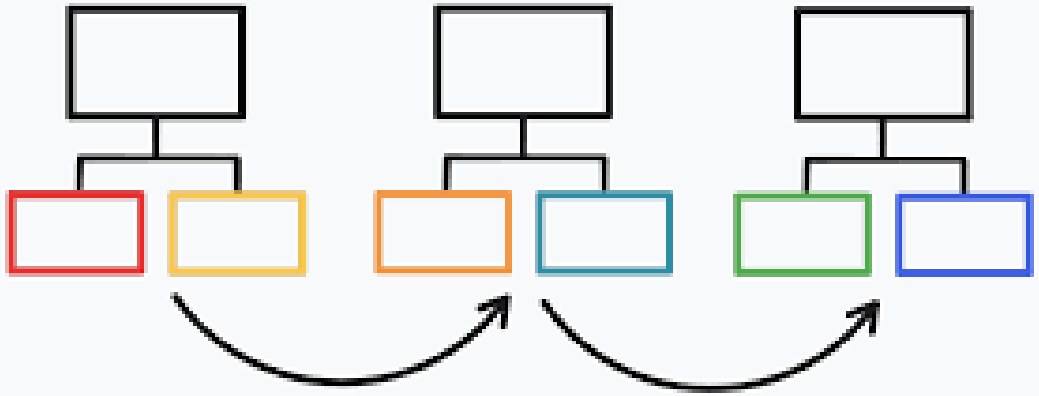
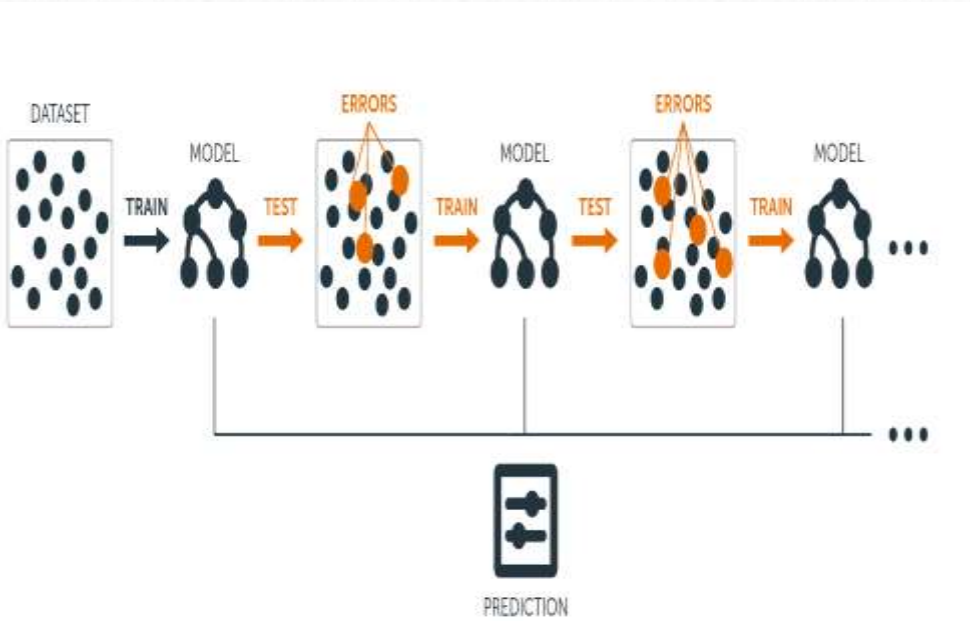


AdaBoost

Classification Regression





Introduction to AdaBoost:

•AdaBoost stands for Adaptive Boosting.

•It is a type of ensemble learning technique used to improve the performance of machine learning models.

Principle of AdaBoost Regression:

- *Combines multiple weak learners to form a strong learner.*
- *Iteratively adjusts the weights of training instances based on the error of the previous model.*

Advantages:

- **Improved Accuracy:**

  Boosts the performance of weak learners.

- **Adaptability:**

  Adjusts to errors and focuses on difficult-to-predict instances.

- **Flexibility:**

  Can be used with various base learners

Disadvantages:

- **Sensitive to Noisy Data:**

  Performance can degrade with outliers.

- **Computational Cost:**

  More computationally intensive than single models due to iterative nature.

- **Overfitting:**

  Can overfit if not carefully managed, especially with complex models.

Thank You

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