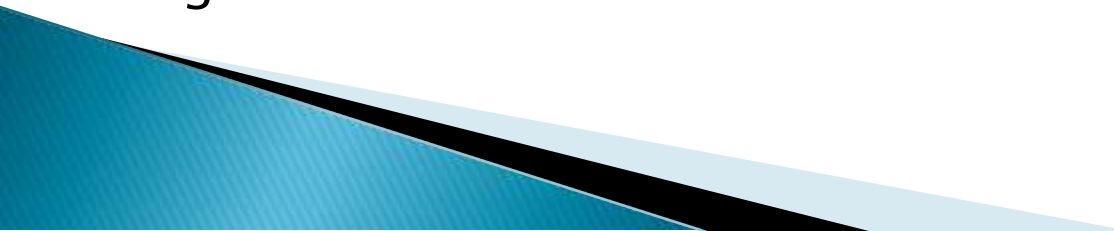


XG BOOSTING ALGORITHM

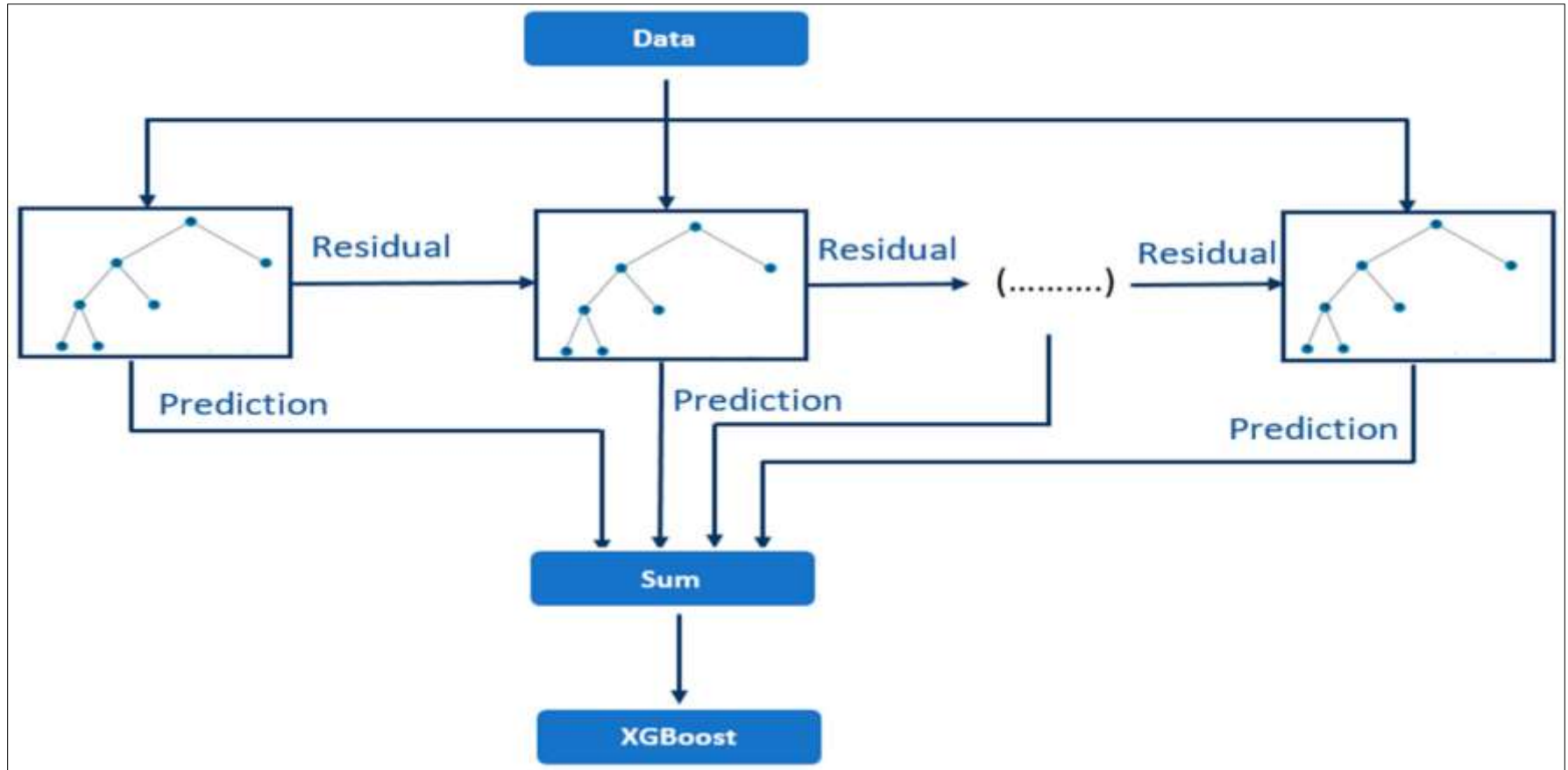
What is XG Boosting

- The XG Boosting algorithm, short for eXtreme Gradient Boosting, is an advanced machine learning technique that excels in predictive modeling for both classification and regression tasks.
- XG Boost is a highly efficient and customizable implementation of gradient boosting, and it is widely preferred for its scalability, speed, and superior performance on large and complex datasets.

Key Concepts of XG:

- XG Boost employs regularization techniques to reduce overfitting and improve generalization.
 - The algorithm leverages parallel processing, cache awareness, and out-of-core computation to efficiently train on large datasets.
- 

How XG boost works



Use cases of XGboost:

XGboost are mainly used in following fields:

- Stock Market Prediction
- Fraud Detection in Finance
- Time Series Forecasting
- Healthcare Outcome Prediction

Pros and Cons of XG Boosting

- | | |
|---|--|
| <ul style="list-style-type: none">▶ High Performance and Accuracy▶ Efficient Handling of Large Datasets▶ Flexibility▶ Handles Missing Values | <ul style="list-style-type: none">▶ Complex Parameter Tuning▶ High Memory Usage▶ Risk of Over fitting▶ Verbose and Complex Output |
|---|--|