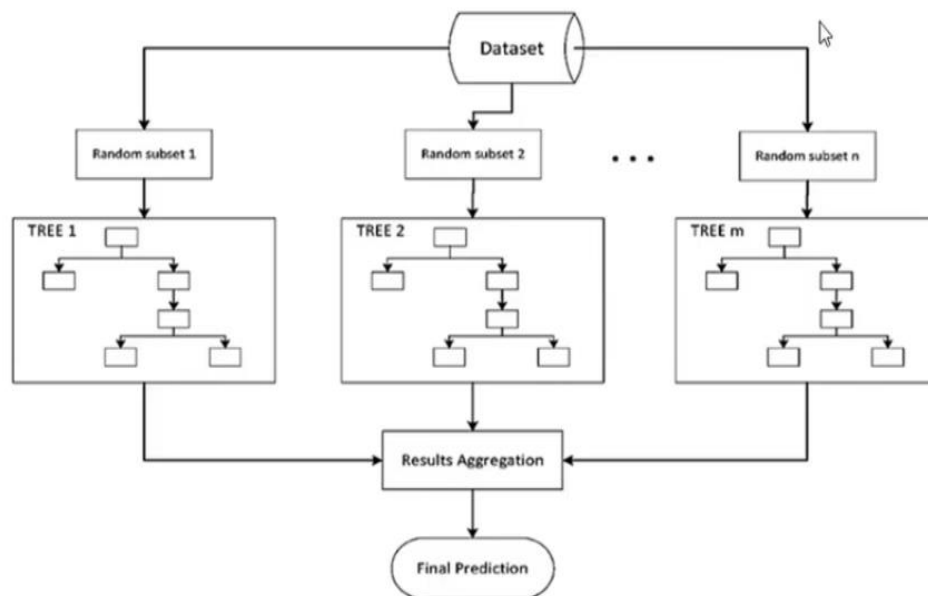


Ensemble Methods in Machine Learning:

What are They and Why Use Them?



Ensemble Methods in Machine Learning:

- Bagging or Bootstrap Aggregation
 - Bagged Decision Trees
 - Random Forest Classifier or Regressor
 - Extra Trees
- Boosting
 - AdaBoost
 - Stochastic Gradient Boosting
 - XgBoost
- Voting

Ensemble Methods in Machine Learning:

- **Bagging.** Building multiple models (typically of the same type) from different subsamples of the training dataset.
- **Boosting.** Building multiple models (typically of the same type) each of which learns to fix the prediction errors of a prior model in the chain.
- **Voting.** Building multiple models (typically of differing types) and simple statistics (like calculating the mean) are used to combine predictions.

