SNS College of Engineering

An Autonomous Institution

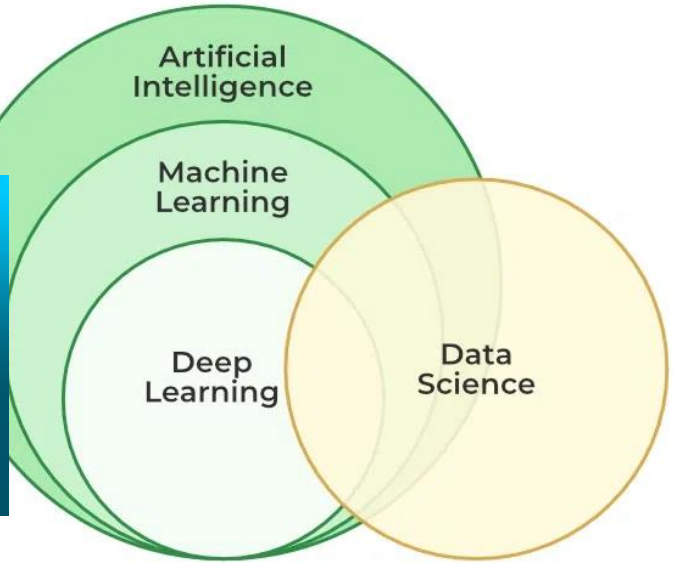
Accredited by NAAC-UGC with 'A' Grade,
Approved by AICTE, Recognized by UGC and Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

UNIT - 2

SUPERVISED LEARNING



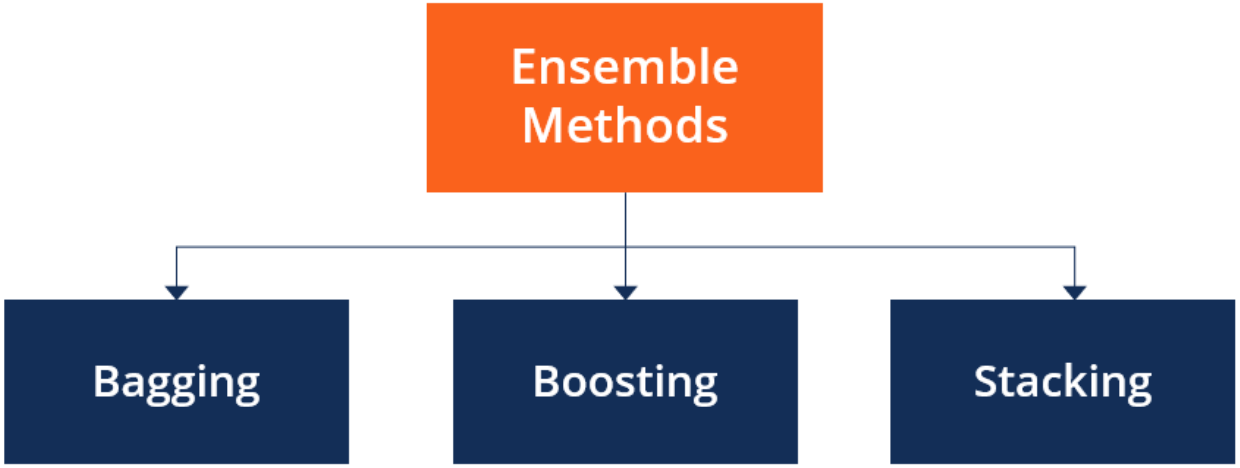
Prepared by

Dr.M.Sudha

Associate Professor, ECE
SNSCE

Ensemble Methods

Ensemble methods are techniques that aim at improving the accuracy of results in models by combining multiple models instead of using a single model. The combined models increase the accuracy of the results significantly.



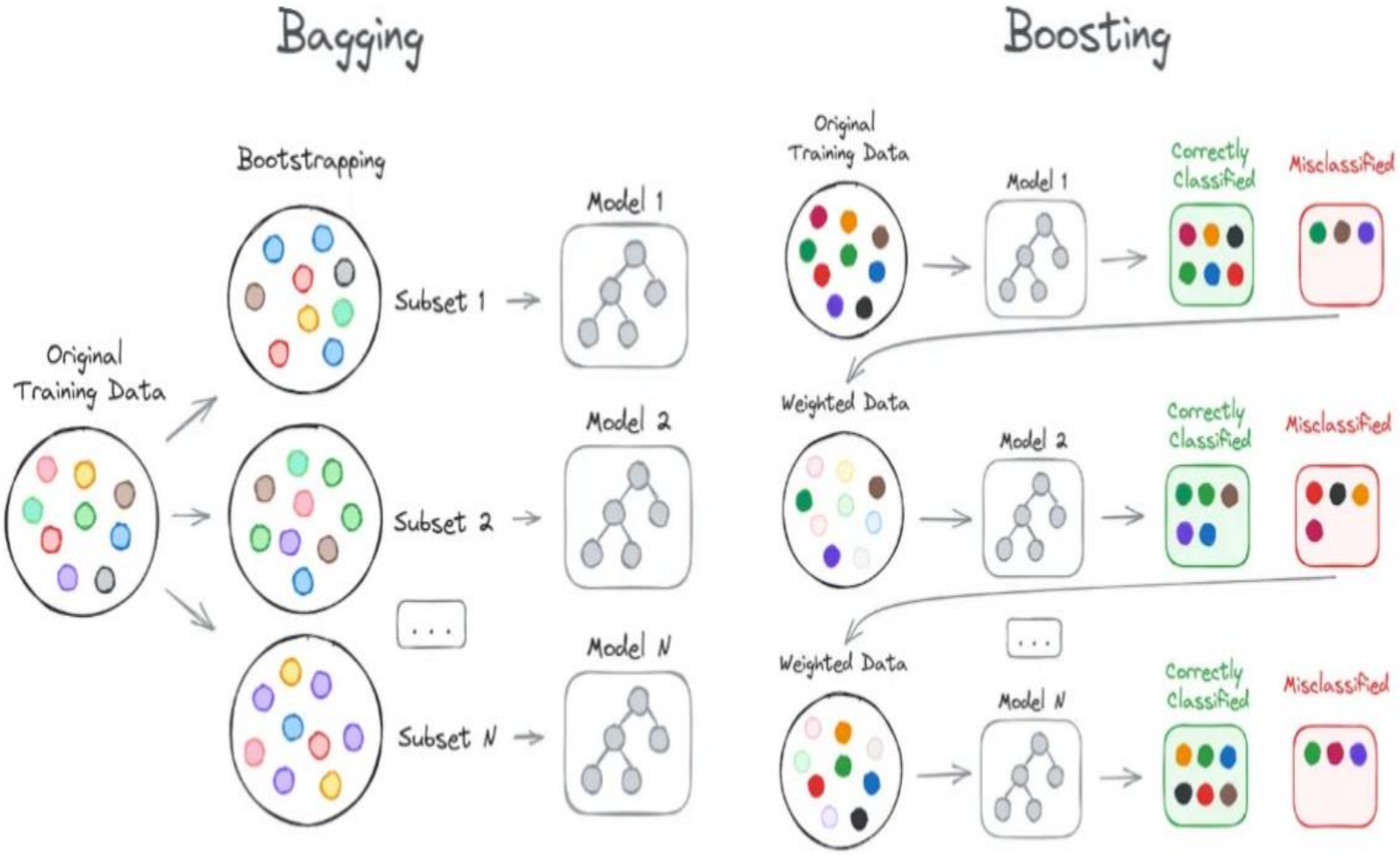
Ensemble Methods

Bagging, the short form for bootstrap aggregating, is mainly applied in **classification and regression.** It **increases the accuracy of models** through decision trees, which reduces variance to a large extent.

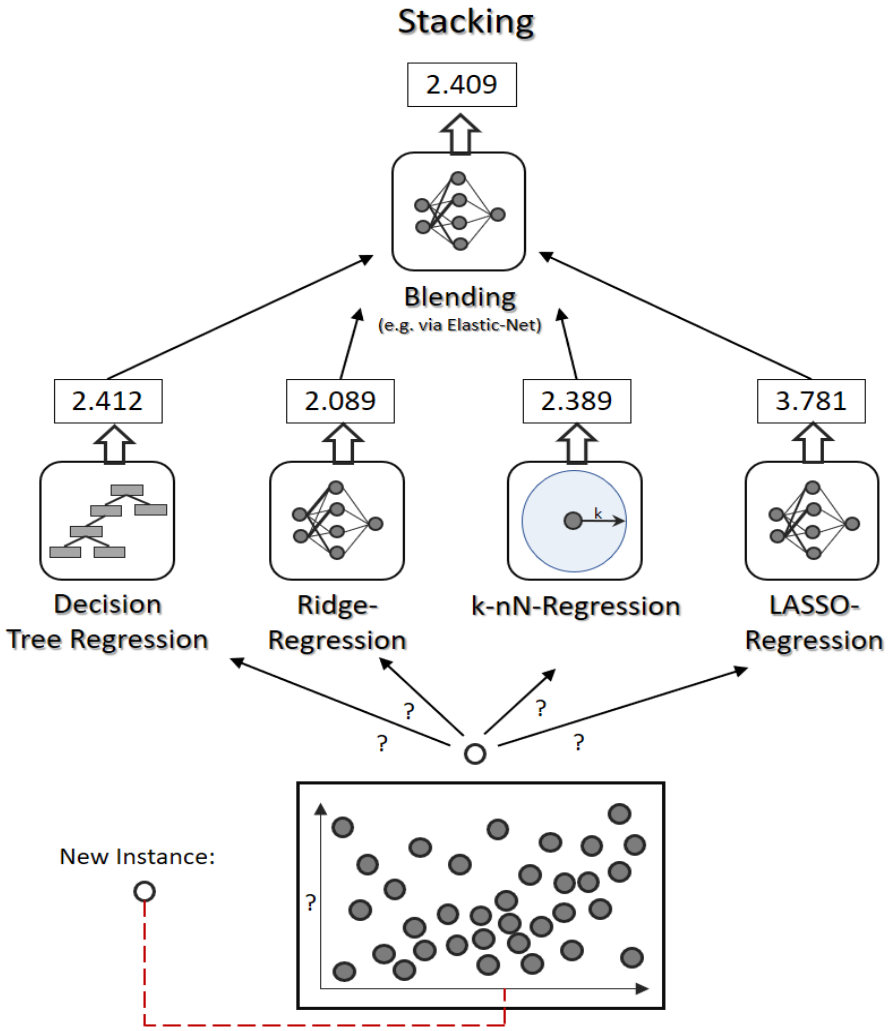
Boosting is an ensemble technique **that learns from previous predictor mistakes to make better predictions in the future**. The technique combines several weak base learners to form one strong learner, thus significantly improving the predictability of models.

Stacking, another ensemble method, is often referred to as stacked generalization. Combination of Bagging and This technique works by **allowing a training algorithm to ensemble several other similar learning algorithm predictions**.

Ensemble Methods



Ensemble Methods



Thank
You