

Bootstrapping vs. Bagging Summary

Feature	Bootstrapping	Bagging (Bootstrap Aggregating)
Primary Role	A sampling method .	An ensemble learning technique .
Purpose	To estimate the uncertainty of a statistic or generate data subsets.	To improve model accuracy and reduce variance (overfitting).
Process	Randomly sampling data with replacement to create a single new dataset.	Uses bootstrapping repeatedly to create many datasets, trains a model on each, and then aggregates the predictions.
Output	A new dataset (a bootstrap sample).	A single, robust final prediction.