

# Ensembles and Methods Constructing Ensembles

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## **Abstract**

This report mainly concludes the basic concept of ensemble methods and several methods for constructing ensembles.

## **1 Ensemble Methods**

Ensemble methods are learning algorithms that construct a set of classifiers and then classify new data points by taking a weighted vote of their prediction. The original ensemble method is Bayesian averaging, but more recent algorithms include error-correcting output coding, Bagging and boosting. Ensembles are often considered to be better than any single reviewed for several fundamental reasons. Those fundamental issues are the most important ways in which existing learning algorithms fail. But ensemble methods have the promise of reducing these key shortcomings of standard learning algorithms. These issues will be elaborated later in this section.