Random Forest Classifier

n\_estimators = number of trees in the forest

max\_features = max number of features considered for splitting a node

max\_depth = maximum number of levels in each decision tree

min\_samples\_split = minimum number of data points placed in a node before the node is split

min\_samples\_leaf = minimum number of data points allowed in a leaf node

bootstrap = method for sampling data points (with or without replacement)

AdaBoost Classifier

n\_estimators = number of trees in the forest

max\_depth = maximum number of levels

learning\_rate = changes contribution of each model to the ensemble

base\_estimator = learning algorithm, default is a decision tree

n\_jobs = number of processors (CPU cores) to use for model formation

Gradient Boosting Classifier

n\_estimators = number of trees in the forest

min\_samples\_split = minimum number of samples in a node required for splitting

min\_samples\_leaf = minimum number of samples required to form a terminal node or leaf

min\_weight\_faction\_leaf = fraction of total number of samples (min\_samples\_leaf alternative)

max\_depth = maximum number of levels

max\_leaf\_nodes = maximum number of terminal nodes

max\_features = maximum number of features used to consider splits

XGBClassifier

n\_estimators = number of trees in the forest

learning\_rate = changes contribution of each model to the ensemble

eta = equivalent to learning rate in other classifiers

gamma = equivalent to min\_split\_loss which a minimum loss value allowed for split

max\_depth = maximum number of levels

min\_child\_weight = minimum sum of weights of observations in a child (like min\_child\_leaf)

subsample = percent of data that can be used for training