

## Tree based models

Classification				
Parameters	Decision Trees	Random Forest	Ada boost	GradientBoosting
n_estimator	---	int   <b>10</b>	int   <b>50</b>	int   <b>100</b>
criterion	'gini'   'entropy'	'gini'   'entropy'	---	'mse'   'friedman_mse'   'mae'
learning_rate	---	---	float   <b>1</b>	float   <b>0.1</b>
loss	---	---	---	<b>deviance</b>   'exponential'
algorithm	---	---	SAME'   ' <b>SAME.R</b> '	---
splitter	'best'   'random'	---	---	---
max_depth	<b>None</b>   int	<b>None</b>   int	---	int   <b>3</b>
min_sample_split	int   float (proportion)   <b>2</b>	int   float (proportion)   <b>2</b>	---	int   float (proportion)   <b>2</b>
min_sample_leaf	int   float (proportion)   <b>1</b>	int   float (proportion)   <b>1</b>	---	int   float (proportion)   <b>1</b>
min_weight_fraction_leaf	float   <b>0.0</b>	float   <b>0.0</b>	---	float   <b>0.0</b>
max_features	int   float   <b>string</b>   <b>None</b> auto'   'sqrt'   'log2'	int   float   <b>string</b>   <b>None</b> auto'   'sqrt'   'log2'	---	int   float   <b>string</b>   <b>None</b> auto'   'sqrt'   'log2'
max_leaf_nodes	int   <b>None</b>	int   <b>None</b>	---	int   <b>None</b>
min_impurity_decrease	float   <b>0.0</b>	float   <b>0.0</b>	---	float   <b>0.0</b>
min_impurity_split	float   <b>1e-7</b>	float   <b>1e-7</b>	---	float   <b>1e-7 (deprecated)</b>
class_weight	'balanced'   dict   list   <b>None</b>	'balanced'   dict   list   <b>None</b>	---	---
subsample	---	---	---	float   <b>1.0</b>
presort	<b>False</b>   True	---	---	<b>False</b>   True
random_state	<b>None</b>   int	<b>None</b>   int	<b>None</b>   int	<b>None</b>   int
n_jobs	---	<b>None</b>   int	---	---
bootstrap	---	<b>True</b>   False	---	---
oob_score	---	True   <b>False</b>	---	---
warm_start	---	True   <b>False</b>	---	True   <b>False</b>
validation_fraction	---	---	---	float   <b>0.1</b>
n_iter_no_change	---	---	---	int   <b>None</b>
tol	---	---	---	float   <b>1e-4</b>

Regression				
Parameters	Decision Trees	Random Forest	Ada boost	GradientBoosting
n_estimator	---	int   <b>10</b>	int   <b>50</b>	int   <b>100</b>
criterion	'mse'   'friedman_mse'   'mae'	'mse'   'mae'	---	'mse'   'friedman_mse'   'mae'
learning_rate	---	---	float   <b>1.0</b>	float   <b>1.0</b>
loss	---	---	'linear'   'square'   'exponential'	'ls'   'lad'   'huber'   'quantile'
splitter	'best'   'random'	---	---	---
max_depth	<b>None</b>   int	<b>None</b>   int	---	int   <b>3</b>
min_sample_split	int   float (proportion)   <b>2</b>	int   float (proportion)   <b>2</b>	---	int   float (proportion)   <b>2</b>
min_sample_leaf	int   float (proportion)   <b>1</b>	int   float (proportion)   <b>1</b>	---	int   float (proportion)   <b>1</b>
min_weight_fraction_leaf	float   <b>0.0</b>	float   <b>0.0</b>	---	float   <b>0.0</b>
max_features	int   float   <b>string</b>   <b>None</b> auto'   'sqrt'   'log2'	int   float   <b>string</b>   <b>None</b> auto'   'sqrt'   'log2'	---	int   float   <b>string</b>   <b>None</b> auto'   'sqrt'   'log2'
max_leaf_nodes	int   <b>None</b>	int   <b>None</b>	---	int   <b>None</b>
min_impurity_decrease	float   <b>0.0</b>	float   <b>0.0</b>	---	float   <b>0.0</b>
min_impurity_split	float   <b>1e-7</b>	float   <b>1e-7</b>	---	float   <b>1e-7 (deprecated)</b>
class_weight	---	---	---	---
subsample	---	---	---	float   <b>1.0</b>
presort	<b>False</b>   True	---	---	<b>auto'</b>   True   False
random_state	<b>None</b>   int	<b>None</b>   int	<b>None</b>   int	<b>None</b>   int
n_jobs	---	<b>None</b>   int	---	---
bootstrap	---	<b>True</b>   False	---	---
oob_score	---	True   <b>False</b>	---	---
warm_start	---	True   <b>False</b>	---	True   <b>False</b>
validation_fraction	---	---	---	float   <b>0.1</b>
n_iter_no_change	---	---	---	int   <b>None</b>
tol	---	---	---	float   <b>1e-4</b>