

List of ML Algorithms and their hyperparameters

ML Algorithm	Main Hyperparameters	Optional Hyperparameters	Scikit Learn Documentation
Ridge & Lasso	alpha	-	Ridge Lasso
Logistic regression	Penalty, C, solver	-	Logistics Regression
K-Nearest Neighbors	n neighbors	Weights, p, algorithm	KNeighborsClassifier
Support Vector Machine	C, kernel, epsilon (for SVR)	Gamma, coef0, degree	SVC SVR
Naive Bayes	alpha	-	Naive Bayes
Decision Tree	Criterion, max depth, min samples split, min samples leaf, max features	Splitter, min weight fraction leaf, max leaf nodes	DecisionTreeClassifier DecisionTreeRegressor
Random Forest	n estimators, max depth, criterion, min samples split, min samples leaf, max features	splitter, min weight fraction leaf, max leaf nodes	RandomForestClassifier RandomForestRegressor
XGBoost	n estimators, max depth, learning rate, subsample, colsample bytree,	min child weight, gamma, alpha, lambda	XGBoost
Voting	estimators, voting	weights	Voting Classifier Voting Regressor

Bagging	base estimator, n estimators	max samples, max features	BaggingClassifier BaggingRegressor
AdaBoost	base estimator, n estimators, learning rate	-	AdaBoostClassifier AdaBoostRegressor
K-means	n clusters	init, n init, max iter	KMeans
Hierarchical clustering	n clusters, distance threshold	linkage	AgglomerativeClustering
DBSCAN	eps, min samples	-	DBSCAN
Gaussian mixture	n components	covariance type, max iter, tol	Gaussian Mixture