

Classification Trees

Tasks (Lab 7):

1. Classification tree. Consider dataset BreastCancer (`sklearn.datasets.load_breast_cancer`)
 - (a) Fit classification tree. Analyze how different parameters (criterion, splitter, max depth, min samples split) affect the structure and the size of the tree.
 - (b) Draw a structure of the tree.
 - (c) Prune the default tree using cost-complexity criterion.
2. Bagging. Implement your own version of bagging algorithm. You can use available implementations of decision trees.
3. Compare the following ensemble methods (with default parameters) on 3 selected datasets:
 - Bagging
 - Single tree
 - Random Forest