

The `max_leaf_nodes` hyperparameter sets the maximum number of leaf nodes (nodes with no branches) that the tree can have. A large value of `max_leaf_nodes` is more likely to overfit because with more nodes overall, each individual node is more likely to contain less of the data and thus be less generalizable to future data.

The `min_impurity_decrease` hyperparameter specifies a minimum amount of information gain required for a given tree node to split into additional branch nodes. A small value of `min_impurity_decrease` is more likely to overfit because this will lead to more branches in general and therefore more leaf nodes. More leaf nodes means each individual node is likely to contain less of the data and thus be less generalizable to future data.