Machine Learning

Session 11 - PL

Tree-Based Models – Part 1

Ciência de Dados Aplicada

2023/2024

Decision Trees in Scikit-Learn

- https://scikit-learn.org/stable/modules/tree.html

sklearn.tree.DecisionTreeClassifier

```
class sklearn.tree.DecisionTreeClassifier(*, criterion='gini', splitter='best', max_depth=None, min_samples_split=2,
min_samples_leaf=1, min_weight_fraction_leaf=0.0, max_features=None, random_state=None, max_leaf_nodes=None,
min_impurity_decrease=0.0, class_weight=None, ccp_alpha=0.0, monotonic_cst=None)                    [source]
```

sklearn.tree.DecisionTreeRegressor

```
class sklearn.tree.DecisionTreeRegressor(*, criterion='squared_error', splitter='best', max_depth=None,
min_samples_split=2, min_samples_leaf=1, min_weight_fraction_leaf=0.0, max_features=None, random_state=None,
max_leaf_nodes=None, min_impurity_decrease=0.0, ccp_alpha=0.0, monotonic_cst=None)                  [source]
```

Exercises:

- Notebooks on the github repository:
  - Notebook with examples:
    - notebooks/session12/examples.ipynb
  - Notebook with exercises:
    - notebooks/session12/exercises.ipynb