sl-decision-tree-algorithm

August 26, 2023

[1]:
```
from sklearn.datasets import load_iris
from sklearn.model_selection import train_test_split
from sklearn.tree import DecisionTreeClassifier
from sklearn.metrics import accuracy_score
```

[2]:
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# Load the Iris dataset
iris = load_iris()
X = iris.data
y = iris.target
```

[3]:
```
# Split the dataset into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2,␣
↪random_state=42)
```

[4]:
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# Create a Decision Tree classifier
decision_tree = DecisionTreeClassifier()
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# Train the classifier on the training data
decision_tree.fit(X_train, y_train)
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[5]:
```
DecisionTreeClassifier()
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[6]:
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# Make predictions on the test data
y_pred = decision_tree.predict(X_test)
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[7]:
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# Calculate accuracy
accuracy = accuracy_score(y_test, y_pred)
print(f"Accuracy: {accuracy:.2f}")
```

```
Accuracy: 1.00
```

[ ]:
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