arbrededecision

March 24, 2023

0.1 Arbre de décision

```python
[2]: import numpy as np
     import pandas as pd
```

```python
[3]: df = pd.read_csv('spam.csv')
```

```python
[4]: X = df.iloc[:, 0:-1].values
     y = df.iloc[:, -1].values
```

```python
[5]: from sklearn.model_selection import train_test_split
     X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.25,
      ↪random_state = 0)
```

```python
[7]: from sklearn import tree
     clf = tree.DecisionTreeClassifier()
     clf = clf.fit(X_train, y_train)
```

```python
[8]: y_pred = clf.predict(X_test)
```

```python
[9]: from sklearn.metrics import confusion_matrix
     cm = confusion_matrix(y_test, y_pred)
     print(cm)
```

```
[[634  57]
 [ 56 404]]
```

```python
[10]: from sklearn.metrics import accuracy_score
      accuracy_score(y_test, y_pred)
```

```
[10]: 0.9018245004344049
```

```python
[ ]:
```