week3

June 24, 2024

[7]:
```
from sklearn.datasets import load_iris

iris=load_iris()

x=iris.data
y=iris.target
```

[9]:
```
from sklearn.model_selection import train_test_split
x_train,x_test,y_train,y_test=train_test_split(x,
                                               y,
                                               test_size=0.4,
                                               random_state=1)
```

[29]:
```
from sklearn.neighbors import KNeighborsClassifier
model = KNeighborsClassifier (n_neighbors=3)
model.fit(x_train, y_train)
```

[29]:
```
KNeighborsClassifier(n_neighbors=3)
```

[35]:
```
from sklearn. metrics import accuracy_score

y_pred = model.predict(x_test)
acc = accuracy_score(y_test, y_pred)
print (f'Accuracy: {acc}')
```

```
Accuracy: 0.9833333333333333
```

[37]:
```
data_baru = [[5, 5, 3, 2],
             [2, 4, 3, 5]]

preds = model.predict (data_baru)
preds
```

[37]:
```
array([1, 2])
```

[63]:
```
pred_species = [iris.target_names[p] for p in preds]
print(f'Hasil prediksi: {pred_species}')
```

```
Hasil prediksi: ['versicolor', 'virginica']
```

[65]:
```
import joblib

joblib.dump (model, 'iris_classifier_knn.joblib')
```

[65]:
```
['iris_classifier_knn.joblib']
```

[55]:
```
production_model = joblib.load('iris_classifier_knn.joblib')
```