IE 345 - K “Introduction to Deep Learning: Fundamentals Concepts”

Prof. Yuzo

A Quick Example

Iris Dataset

pg. 32 - 33

In [1]:

```
import sklearn
from sklearn.datasets import load_iris
from sklearn import tree
from sklearn.metrics import accuracy_score
import numpy as np
```

In [2]:

```
# Loading the iris dataset
iris = load_iris()

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

In [3]:

```
# Getting label names
y_names = iris.target_names

# Taking random indices to split the dataset into train and test
test_ids = np.random.permutation(len(x))
```

In [4]:

```
# Splitting data and labels into train and test
# Keeping last 10 entries for testing, rest for training

x_train = x[test_ids[:-10]]
x_test = x[test_ids[-10:]]

y_train = y[test_ids[:-10]]
y_test = y[test_ids[-10:]]
```

In [8]:

```
#Classifying using DECISION TREE
clf = tree.DecisionTreeClassifier()

# Training the classifier
clf.fit(x_train, y_train)
# Predictions on the test
pred = clf.predict(x_test)

print('Prediction: ', pred)
print('Test: ', y_test)
print('Accuracy: ',(accuracy_score(pred, y_test))*100)
```

```
Prediction:  [2 0 0 0 1 2 0 2 1 2]
Test:  [2 0 0 0 1 1 0 2 1 2]
Accuracy:  90.0
```

Pablo David Minango Negrete

pablodavid218@gmail.com