

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

Prof. Yuzo

Getting & Processing Data

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In [1]:

```
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
```

In [2]:

```
dataset = pd.read_csv('C:/Users/pablo/Desktop/IE345_DeepLearning/DataAnalysisFromScratchwithPython_Peters Morgan/Datasets/Position_salaries.csv')
x = dataset.iloc[:, [1, 2]].values
y = dataset.iloc[:, 2].values
print('X: ', x)
print('Y: ', y)

# Splitting the dataset into the training and test set
from sklearn.model_selection import train_test_split

x_train, x_test, y_train, y_test = train_test_split(x, y, test_size=0.2, random_state=0)
```

```
X: [[ 1  45000]
 [ 2  50000]
 [ 3  60000]
 [ 4  80000]
 [ 5 110000]
 [ 6 150000]
 [ 7 200000]
 [ 8 300000]
 [ 9 500000]
 [10 1000000]]
```

```
Y: [ 45000  50000  60000  80000 110000 150000 200000 300000 500000 1000000]
```

In [3]:

```
from sklearn.preprocessing import StandardScaler

sc_X = StandardScaler()
X_train = sc_X.fit_transform(x_train)
X_test = sc_X.transform(x_test)
# sc_y = StandardScaler()
# y_train = sc_y.fit_transform(y_train)

print('X_train: ', X_train)
print('X_test: ', X_test)
```

```
X_train: [[-0.13271219 -0.44345056]
 [ 1.63678363  2.54931528]
 [-1.19440968 -0.64521005]
 [ 0.57508614 -0.14081131]
 [ 0.92898531  0.19545451]
 [-0.48661135 -0.5443303 ]
 [-1.54830884 -0.66202334]
 [ 0.22118698 -0.30894423]]
X_test: [[-0.84051051 -0.61158347]
 [ 1.28288447  0.86798616]]
```

```
C:\Users\pablo\Python\envs\DAVID\lib\site-packages\sklearn\utils\validation.py:595: DataConversionWarning: Data with input dtype int64 was converted to float64 by StandardScaler.
```

```
warnings.warn(msg, DataConversionWarning)
```

```
C:\Users\pablo\Python\envs\DAVID\lib\site-packages\sklearn\utils\validation.py:595: DataConversionWarning: Data with input dtype int64 was converted to float64 by StandardScaler.
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