

PythonProject5

Version control

Current File

Trial

bostondataset.ipynb

Go to Cell 2

Managed Server: http://localhost:8889

```
1 from sklearn.datasets import fetch_california_housing
2 from sklearn.model_selection import train_test_split
3 from sklearn.linear_model import LinearRegression
4 from sklearn.metrics import mean_squared_error, r2_score
5
6 data = fetch_california_housing()
7 X = data.data
8 y = data.target
9
10 X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)
11
12 model = LinearRegression()
13 model.fit(X_train, y_train)
14
15 y_pred = model.predict(X_test)
16 mse = mean_squared_error(y_test, y_pred)
17 r2 = r2_score(y_test, y_pred)
18
19 print(f"Mean Squared Error: {mse:.2f}")
20 print(f"R² Score: {r2:.2f}")
```

✓ [7] 73ms

Mean Squared Error: 0.56

R² Score: 0.58

Jupyter Variables

LinearRegression = {ABCMeta} <class 'sklearn.linear_mod... View

X = {ndarray: (20640, 8)} [[8.3252 41. ...View as Array

X_test = {ndarray: (4128, 8)} [[1.6812 25. ...View as Array

X_train = {ndarray: (16512, 8)} [[3.2596 33. ...View as Array

data = {Bunch: 6} {'data': array([[8.3252 , 41. ... View

model = {LinearRegression} LinearRegression()

mse = {float} 0.5558915986952425

r2 = {float} 0.5757877060324521

y = {ndarray: (20640,)} [4.526 3.585 3.521 3.4...View as Array

y_pred = {ndarray: (4128,)} [0.71912284 1.76401...View as Array

y_test = {ndarray: (4128,)} [0.477 0.458 5.000C...View as Array

y_train = {ndarray: (16512,)} [1.03 3.821 1.726 ...View as Array

Special Variables

20,541-20,640 20,640 rows x 8 cols

↕	$\overline{123}$ 0	↕	$\overline{123}$ 1	↕	$\overline{123}$ 2	↕	$\overline{123}$ 3	↕	$\overline{123}$ 4	↕	$\overline{123}$
205...	3.19080		16.00000		4.38679		0.98113		1386.00000		1
205...	4.62250		13.00000		6.11570		1.03857		2828.00000		2
205...	4.73080		33.00000		6.57560		1.01326		979.00000		3
205...	1.73110		33.00000		3.88285		1.02999		3717.00000		4
205...	2.06500		23.00000		4.80349		1.01365		6330.00000		5
205...	3.74520		26.00000		5.11395		1.01171		2199.00000		6
205...	3.45590		47.00000		6.14855		1.15217		775.00000		7
205...	2.19270		43.00000		4.32995		1.01184		1820.00000		8
205...	1.39420		38.00000		3.56614		0.94180		701.00000		9

Jupyter Variables

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> model = {LinearRegression} LinearRegression()
10 mse = {float} 0.5558915986952425
01
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01
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> Special Variables
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