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Calc

AQ 5: Activity Question 5 - Not Graded
Assignment

Practice Assignment 4 - Not Graded
Assignment

Graded Assignment 4
Assignment

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Graded Assignment 4

The due date for submitting this assignment has passed.
Due on 2024-02-18, 23:59 IST.

You may submit any number of times before the due date. The final submission will be considered for grading.

You have last submitted on: 2024-02-18, 22:22 IST

It is mandatory to use sklearn.__version__ = 1.2.2 for solving all the questions

Instructions: For all graded questions, split the california housing dataset into train and test sets.

[Hint: use appropriate API with random_state=0, shuffle=False and test_size=0.2]

1) If we use StandardScaler for preprocessing and LinearRegression for fitting the model with training set obtained from following code snippet: ***1 point***
X_train,X_test,y_train,y_test= train_test_split(X,y, test_size=0.2, shuffle=False, random_state=0)
Assume that (X,y) is the california housing dataset.
What is the R squared value for predictions obtained using test set features?

Note: Use methods and objects with default parameters

- (•) 0.66051
- ( ) 0.70623
- ( ) 0.80623
- ( ) 0.90623

Yes, the answer is correct.
Score: 1

Accepted Answers:

0.66051

2) If we use StandardScaler for preprocessing and LinearRegression for fitting the model, what is the root mean squared error value for predictions obtained using test set features? ***1 point***

Note: Use methods and objects with default parameters

- ( ) 0.8241
- ( ) 0.9241
- (•) 0.7033
- ( ) 0.6241

Yes, the answer is correct.
Score: 1

Accepted Answers:

0.7033

Instructions for next ques from Que 3 to 8

Split the data into training and test sets with random_state=0, shuffle=False and test_size=0.2 parameters.

Let, y_test= target label in test set of california housing dataset

and y_pred=target labels obtained by the model using X_test

Then compute values of the following evaluation metrics

3) Explained Variance score ***1 point***

- (•) 0.66
- ( ) 0.81
- ( ) 0.73
- ( ) 0.90

Yes, the answer is correct.
Score: 1

Accepted Answers:

0.66

4) Max Error ***1 point***

- ( ) 0.18

- 2.16
- 0.66
- 7.26

Yes, the answer is correct.
Score: 1

Accepted Answers:

7.26

5) Mean Absolute Error *1 point*

- 0.213
- 0.516
- 0.398
- 0.422

Yes, the answer is correct.
Score: 1

Accepted Answers:

0.516

6) Mean Squared Error *1 point*

- 0.038
- 0.494
- 0.506
- 0.872

Yes, the answer is correct.
Score: 1

Accepted Answers:

0.494

Instructions: for Ques 7 to 8, perform SGD Regression on the given (scaled using StandardScalar()) dataset, using default hyperparameters and random_state=0.

7) What is the bias term? *1 point*

- 2.0112
- 1.0704
- 0.0704
- 3.0704

Yes, the answer is correct.
Score: 1

Accepted Answers:

2.0112

8) What are the coefficients in predicted model? *1 point*

- [0.9268, 2.1200, -0.2552 , 0.3310 , -0.0076,0.02969, -0.9130 , -0.8845]
- [1.8268, 0.1200, -2.2552 , 0.3310 , -0.0076,0.02969, -0.9130 , -2.8845]
- [0.8404, 0.1123 , -0.4121, 0.2159, -0.0178,-0.01480, -0.8739, -0.8391]
- [0.9268, 0.3200, -0.2552 , 0.4310 , -0.0076,0.02969, -0.9130 , -1.8845]

Yes, the answer is correct.
Score: 1

Accepted Answers:

[0.8404, 0.1123 , -0.4121, 0.2159, -0.0178,-0.01480, -0.8739, -0.8391]