ED5340:Data Science: Theory and practice

LAB 10:Linear regression in single and multiple variables

Done

Opened: Wednesday, 27 March 2024, 12:00 AM
Due: Wednesday, 27 March 2024, 11:59 PM

1) Implement the generalized equation for finding the gradient of m-samples, each having n-features. Also, implement the gradient descent approach assuming a constant learning rate.

2) Using the code developed for problem 1, do the linear regression for the univariate problem using the attached data file univariate_linear_regression.csv. Plot the cost function (both as surface as well as contour) as well as the best fit line.

3) Using the code developed for problem 1, do the linear regression for the multivariate problem using the attached data file heart.data.csv. Plot the best fit plane for the given data. Can you also interpret the result (taking one independent variable at a time)?

PS: I am also sparing the polynomial regression (model analysis) problem for a later lab!

heart.data.csv	27 March 2024, 10:44 AM
univariate_linear_regression.csv	27 March 2024, 10:44 AM

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Submission status

Submission status	Submitted for grading
Grading status	Graded
Time remaining	Assignment was submitted 4 hours 24 mins early
Last modified	Wednesday, 27 March 2024, 7:34 PM
File submissions	AM23M022_LAB10_27_03_2024.py 27 March 2024, 7:34 PM
Submission comments	Comments (0)

Feedback

Grade	10.00 / 10.00
Graded on	Saturday, 1 June 2024, 2:56 AM
Graded by	eM ed19b017 M JASWANTH KUMAR

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