

Multiple Linear Regression. In-class Exercise 3

EL-GY 6143 Intro Machine Learning. Prof. Sundeep Rangan

Question

We are given the following data

Sample number	Target y_i	Feature 1 x_{i1}	Feature 2 x_{i2}
1	3.0	0	1
2	5.0	2	3
3	9.0	4	8
4	10.0	6	10

- Q1. Write the equations to solve for the linear model using all four data points
 - Write the feature matrix and the equations for coefficients.
 - Do not solve them (you would need a computer)
- Q2. Can you find parameters that exactly fits the first three data points?
 - Just state if such parameters exist. You do not need to find them.