

Machine Learning

ML Quiz #1

Mostafa S. Ibrahim

Teaching, Training and Coaching for more than a decade!

Artificial Intelligence & Computer Vision Researcher

PhD from Simon Fraser University - Canada

Bachelor / MSc from Cairo University - Egypt

Ex-(Software Engineer / ICPC World Finalist)



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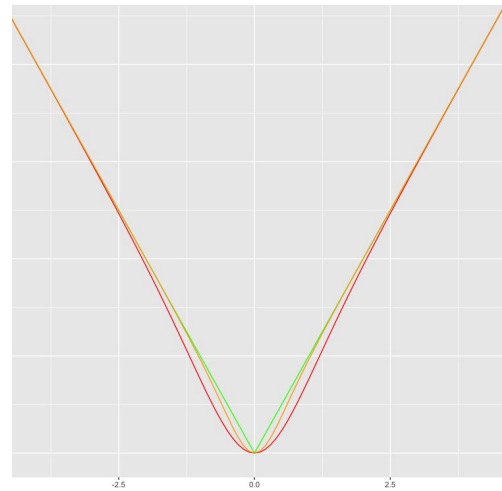
Question 1: True or False

- 1: Linear regression is a supervised learning algorithm used for predicting continuous numerical values
- 2: Linear regression assumes a linear relationship between the output variable and the input variables
- 3: The objective of linear regression is to minimize the sum of squared errors between the predicted values and the actual values
- 4: Gradient descent is one way to minimize this objective by finding the optimal parameters that minimize this sum
- 5: The hypothesis (model) of linear regression for a single input feature x takes the form $\theta_1 x + \theta_0$

Prepare the answer but don't paste in the chat unless I asked

Question 2: True or False

- 6: Gradient Descent is an optimization algorithm for finding the minimum of a differentiable function
- 7: Gradient descent works directly for linear regression with absolute error as cost function
- 8: What if we approximated the absolute error with a function as following?



Question 3

- Our website has some input fields that we pass to a machine learning service. Here is a sample of the data that machine learning folks have in their dataset. Any comments
- Seems there is some website bug
- The 2 last columns at some date are swapped!

Date	Feat1	Feat2
May 01	2	315
May 03	1	750
May 04	0	122
May 06	0	331
May 08	2	650
May 14	135	1
June 5	210	1
June 21	900	2
July 1	312	0
July 29	650	2