Multilayer perceptron
Graded Quiz • 10 min

Multilayer perceptron
TOTAL POINTS 4

1.Question 1
Choose the correct statements about MLP

() MLP with a linear activation function is better than a linear model

(**X**) A hidden layer of MLP automatically learns new helpful features for the task

() The first hidden layer contains predictions for your task

() MLP can have only 1 hidden layer

(**X**) We can train MLP with SGD

1 point

2.Question 2
Apply a chain rule to calculate ∂a∂x where a(x, y) = a(x,y)=sin(xy)⋅e^x.

Here is an example of the syntax: sin(x*y)*exp(x), more info here

Preview : ye^xcos(xy)+e^xsin(xy)

y*cos(x*y)*exp(x)+sin(x*y)*exp(x)

1 point

3.Question 3
Choose the correct statements about back-propagation

(**X**) It is the way to train modern neural networks

(**X**) It is an efficient way to apply a chain rule

() You can use non-differentiable loss to train your MLP

() It is done in one pass

1 point

4.Question 4
What is the time complexity of back-propagation algorithm w.r.t. number of edges NN in the computational graph?

O(N)

O(N!)

O(N^2)

O(log(N))

1 point

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