Unit 6 - week 4

Assignment 4

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-02-26, 23:59 IST.

1) "Momentum based gradient descent algorithm and Nesterov accelerated gradient descent are faster than Stochastic gradient descent algorithm" *1 point*

- True
- False

No, the answer is incorrect.
Score: 0
Accepted Answers:
True

2) Consider the following statement, *1 point*
"It takes less time to navigate the regions having a gentle slope" The above statement is true in case of

I. Gradient descent algorithm
II. Momentum based gradient descent algorithm

- I
- II
- I & II

No, the answer is incorrect.
Score: 0
Accepted Answers:
II

3) Pick out the number of steps in one epoch for Mini batch gradient descent algorithm where N is the number of data points and B is the Mini batch size. *1 point*

- 1
- N
- B
- N/B

No, the answer is incorrect.
Score: 0
Accepted Answers:
N/B

4) Identify the technique that is used to achieve relatively better learning rate by updating **w** using bunch of different values of **η**. *1 point*

- Bias Correction
- Line Search
- Stochastic
- All the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
Line Search

5) "There is no guarantee that the loss decreases at each step in a stochastic Gradient Descent" *1 point*

- True
- False

No, the answer is incorrect.
Score: 0
Accepted Answers:
True

6) Given two points (2,1) and (4,7), find the slope. *1 point*

- 4
- 3
- 2
- 1

No, the answer is incorrect.
Score: 0
Accepted Answers:
3

7) Identify the advantages of Nesterov accelerated gradient descent. *1 point*

I. Corrects its course quicker than Momentum-based gradient descent
II.Oscillations are smaller
III.Chances of escaping minima valley are also smaller

- I only
- II only
- II and III
- I, II and III

No, the answer is incorrect.
Score: 0
Accepted Answers:
I, II and III

8) Pick out the methods for annealing learning rate that has only number of epochs as the hyperparameter. *1 point*

- Step decay
- Exponential Decay
- 1/t Decay

No, the answer is incorrect.
Score: 0
Accepted Answers:
Step decay

9) Adagrad got stuck when it was close to convergence. How does RMSProp overcome this problem? *1 point*

- More Aggressive on decay
- Less Aggressive on decay
- No decay

No, the answer is incorrect.
Score: 0
Accepted Answers:
Less Aggressive on decay

10) Which of the following gradient descent algorithm suffers from more oscillations? *1 point*

- Momentum based gradient descent
- Nesterov accelerated gradient descent
- Vanilla gradient descent
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
Momentum based gradient descent