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## Question: Given a dataset $\{x_1; x_2; \dots; x_n\}$ containing samples drawn from...

Given a dataset  $\{x_1; x_2; \dots; x_n\}$  containing samples drawn from an unknown data distribution  $p(x)$ , we want to learn a distribution  $p_{\Theta}(x)$  that is as close as possible to the true distribution  $p(x)$ . Consider two cost functions to find the optimal  $p_{\Theta}(x)$ :  $D_{KL}(p(x) || p_{\Theta}(x))$  and

$$\int x (p_{\Theta}(x) p(x))^2 dx.$$

Choose the best cost function out of these.

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## Expert Answer



Anonymous answered this  
1,491 answers

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Here is the solution to the problem: -

According to my suggestion best function will be the function which minimizes the error.

Because the main reason we use the cost function to reduce the error in the data and will help us to best fit the line with the actual and predicted value of a model.

As I can see that you have two cost functions one is

$$P_{\Theta}(x) : D_{KL}(P(x) || p_{\Theta}(x))$$

and the Other one is

$$\int x (P_{\Theta}(x) p(x))^2 dx$$

According to me, you should go with the 2nd cost function. Because in this we are integrating the function and also it will help us to best fit the line and reduce the error in the data. The 2nd function will help in saving time and cost.

The Solution is perfectly working and correct to my knowledge.

I really tried hard to solve the problem.

So please like the SOLUTION.

If you have any doubts please ask in the comment section. don't dislike the solution before asking in the comment section. If I am not able to solve your problem then you can dislike the solution.

I am happy to help.

I am hoping that now your problem is resolved.

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lady. you can buy each of these treats in exchange for collectible-wizard cards, and you may win a set of new cards as well. You can stop buying these treats either when you have 0 cards or a maximum of double (2 x ) the number of starting cards ( x ). Say you have 20 ( x...

A: [See answer](#)

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