Google Discussions

EXAM PROFESSIONAL DATA ENGINEER TOPIC 1 QUESTION 77 DISCUSSION

Actual exam question from Google's Professional Data Engineer
Question #: 77
Topic #: 1
[All Professional Data Engineer Questions]

Your neural network model is taking days to train. You want to increase the training speed. What can you do?

A. Subsample your test dataset.

B. Subsample your training dataset.

C. Increase the number of input features to your model.

D. Increase the number of layers in your neural network.

Show Suggested Answer

by YorelNation at *Sept. 2, 2022, 11:01 a.m.*

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mantwosmart Highly Voted 12 months ago

Answer: B. Subsample your training dataset.

Subsampling your training dataset can help increase the training speed of your neural network model. By reducing the size of your training dataset, you can speed up the process of updating the weights in your neural network. This can help you quickly test and iterate your model to improve its accuracy

test and iterate your model to improve its accuracy.

Subsampling your test dataset, on the other hand, can lead to inaccurate evaluation of your model's performance and may result in overfitting. It is important to evaluate your model's performance on a representative test dataset to ensure that it can generalize to new data.

Increasing the number of input features or layers in your neural network can also improve its performance, but this may not necessarily increase the training speed. In fact, adding more layers or features can increase the complexity of your model and make it take longer to train. It is important to balance the model's complexity with its performance and training time.

upvoted 9 times

crazycosmos Most Recent 9 months ago

Selected Answer: B

B is correct

upvoted 3 times

Vipul1600 9 months ago

B should be correct. Increasing the layers can also decrease the training time but may introduce vanishing gradient hence D may not be correct

upvoted 1 times

email2nn 1 year ago

answer is B

upvoted 1 times

juliobs 1 year, 1 month ago

Selected Answer: B

Reduce training time and probably accuracy too.

upvoted 2 times

MingSer 1 year, 2 months ago

Selected Answer: B

all other are wrong

upvoted 1 times

PolyMoe 1 year, 3 months ago

Selected Answer: B

of course !

upvoted 1 times

samdhimal 1 year, 3 months ago

B. Subsampling your training dataset can decrease the amount of data the model needs to process and can speed up training time. However, it can lead to decrease in the model's accuracy.

Although it shouldn't matter since we are not even in testing phase yet and we aren't looking for accuracy.

upvoted 2 times

GCPpro 1 year, 3 months ago

B is the answer as we are bothered about speed not the accuracy.

upvoted 2 times

ler_mp 1 year, 3 months ago

Selected Answer: B

The answer is B. Building a more complex model by increasing the number of layer will not reduce the training time.

upvoted 1 times

slade_wilson 1 year, 4 months ago

Selected Answer: B

By SubSampling the training data, you will reduce the training time.

In case of D, if you increase the number of layers, then the model's accuracy will be increased. But it will not reduce the time required to train the model.

upvoted 4 times

DGames 1 year, 4 months ago

Selected Answer: D

Increase speed of the help to train quicker.. option B is sub sample that also help but it drop accurately of model . So I think Option D is good to go.

upvoted 1 times

jin0 1 year, 2 months ago

That makes speed of training model lower absolutely. because not only throughput of inference but back-propagation calculation would be increase so, D should be not a answer. there is only answer in those options is B. while it makes dropping performance

upvoted 2 times

zellck 1 year, 5 months ago

Selected Answer: B

B is the answer.

upvoted 1 times

pluiedust 1 year, 7 months ago

Selected Answer: B

It is B. D would improve the accuracy, not speed.

upvoted 4 times

Chavoz 1 year, 7 months ago

It's B. D Would be for increase performance

upvoted 1 times

crismo04 1 year, 7 months ago

if you Increase the number of layers, you increase the training time, right?

upvoted 1 times

HarshKothari21 1 year, 7 months ago

Both B and D seems correct.

upvoted 1 times

jkhong 1 year, 4 months ago

Increasing D will increase training time

upvoted 3 times

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