EXAM PROFESSIONAL MACHINE LEARNING ENGINEER TOPIC 1 QUESTION 61 DISCUSSIO..

Actual exam question from Google's Professional Machine Learning Engineer
Question #: 61
Topic #: 1
[All Professional Machine Learning Engineer Questions]

You are using transfer learning to train an image classifier based on a pre-trained EfficientNet model. Your training dataset has 20,000 images. You plan to retrain the model once per day. You need to minimize the cost of infrastructure. What platform components and configuration environment should you use?

A. A Deep Learning VM with 4 V100 GPUs and local storage.

B. A Deep Learning VM with 4 V100 GPUs and Cloud Storage.

C. A Google Kubernetes Engine cluster with a V100 GPU Node Pool and an NFS Server

D. An AI Platform Training job using a custom scale tier with 4 V100 GPUs and Cloud Storage

Show Suggested Answer

by ares81 at *Dec. 7, 2022, 3:25 p.m.*

Comments

Type your comment...

Submit

wish0035 Highly Voted 1 year, 10 months ago

Selected Answer: D

ans: D

A, C => local storage, NFS... discarded. Google encourages you to use Cloud Storage.
B => could do the job, but here I would focus on the "daily training" thing, because Vertex AI Training jobs are better for this. Also I think that Google usually encourages to use Vertex AI over VMs.

upvoted 12 times

oddsoul Most Recent 1 week, 3 days ago

Selected Answer: D

Answer: D
auto scaling

upvoted 1 times

San1111111111 3 months ago

D because automatic scaling

upvoted 1 times

PhilipKoku 4 months, 2 weeks ago

Selected Answer: D

D) Is the best answer

upvoted 1 times

abhay669 10 months, 4 weeks ago

Selected Answer: D

I'll go with D. How is C correct?

upvoted 1 times

Mickey321 11 months, 1 week ago

Selected Answer: A

D as need to minimize cost

upvoted 1 times

Mdso 1 year, 2 months ago

Selected Answer: A

I think it is A. Refer to Q20 of the GCP Sample Questions - they say managed services (such as Kubeflow Pipelines / Vertex AI) are not the options for 'minimizing costs'. In this case, you should configure your own infrastructure to train the model leaving A,B. Undecided between A,B because A would minimize costs, but also result in inefficient I/O operations during training.

upvoted 2 times

tavva_prudhvi 1 year, 3 months ago

Selected Answer: D

The pre-trained EfficientNet model can be easily loaded from Cloud Storage, which eliminates the need for local storage or an NFS server. Using AI Platform Training allows for the automatic scaling of resources based on the size of the dataset, which can save costs compared to using a fixed-size VM or node pool. Additionally, the ability to use custom scale tiers allows for fine-tuning of resource allocation to match the specific needs of the training job.

upvoted 2 times

M25 1 year, 5 months ago

Selected Answer: D

Went with D

upvoted 1 times

shankalman717 1 year, 8 months ago

Selected Answer: B

B. A Deep Learning VM with 4 V100 GPUs and Cloud Storage.

For this scenario, a Deep Learning VM with 4 V100 GPUs and Cloud Storage is likely the most cost-effective solution while still providing sufficient computing resources for the model training. Using Cloud Storage can allow the model to be trained and the data to be stored in a scalable and cost-effective way.

Option A, using a Deep Learning VM with local storage, may not provide enough storage capacity to store the training data and model checkpoints. Option C, using a Kubernetes Engine cluster, can be overkill for the size of the job and adds additional complexity. Option D, using an AI Platform Training job, is a good option as it is designed for running machine learning jobs at scale, but may be more expensive than a Deep Learning VM with Cloud Storage.

upvoted 2 times

enghabeth 1 year, 8 months ago

Selected Answer: D

becouse it's cheap

upvoted 1 times

hiromi 1 year, 10 months ago

Selected Answer: D

it seems D

upvoted 3 times

OzoneReloaded 1 year, 10 months ago

Selected Answer: D

I think it's D

upvoted 2 times

JeanEl 1 year, 10 months ago

Selected Answer: B

It's D

upvoted 2 times

ares81 1 year, 10 months ago

It seems D to me.

upvoted 4 times