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Exam Professional Machine Learning Engineer All Questions

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📄 **EXAM PROFESSIONAL MACHINE LEARNING ENGINEER TOPIC 1 QUESTION 162 DISCUSSI...**

Actual exam question from Google's Professional Machine Learning Engineer

Question #: 162

Topic #: 1

[All Professional Machine Learning Engineer Questions]

You built a custom ML model using scikit-learn. Training time is taking longer than expected. You decide to migrate your model to Vertex AI Training, and you want to improve the model's training time. What should you try out first?

- A. Train your model in a distributed mode using multiple Compute Engine VMs.

- B. Train your model using Vertex AI Training with CPUs.

- C. Migrate your model to TensorFlow, and train it using Vertex AI Training.

- D. Train your model using Vertex AI Training with GPUs.

Show Suggested Answer

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by 👤 **mlx** at *Dec. 10, 2023, 9:33 p.m.*

Comments

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☐ 👤 **TanTran04** 3 months, 3 weeks ago

Selected Answer: B

Scikit-learn is not intended to be used as a deep-learning framework and it does not provide any GPU support. (Ref: https://stackoverflow.com/questions/41567895/will-scikit-learn-utilize-gpu).
So I go with B

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⊟ 👤 **AzureDP900** 4 months ago

You decided to migrate to Vertex AI, If you have a model that requires significant computational resources and doesn't rely heavily on specialized GPU operations (like those in option D), then option B might still be a good choice. However, if your model is computationally intensive or involves complex neural network architectures I would go with D instead of B.

👍 ↩ 🚩 upvoted 1 times

⊟ 👤 **AnnaR** 5 months, 4 weeks ago

B is correct, because scikit only has CPU support for the following services:
- prebuilt containers for custom training (this is the case here)
- prebuilt containers for predictions and explanations
- Vertex AI Pipelines
- Vertex AI Workbench user-managed notebooks
https://cloud.google.com/vertex-ai/docs/supported-frameworks-list#scikit-learn_2

👍 ↩ 🚩 upvoted 3 times

⊟ 👤 **Carlose2108** 7 months, 3 weeks ago

Selected Answer: B

scikit-learn no GPU support.

👍 ↩ 🚩 upvoted 1 times

⊟ 👤 **guilhermebutzke** 8 months, 2 weeks ago

Selected Answer: D

Scikit-learn doesn't natively support GPUs for training. However, many scikit-learn algorithms rely on libraries like NumPy and SciPy. These libraries can leverage GPUs if they're available on the system, potentially benefiting scikit-learn models indirectly.

👍 ↩ 🚩 upvoted 1 times

⊟ 👤 **b1a8fae** 9 months, 2 weeks ago

Selected Answer: B

SK-Learn offers no GPU support. Answer is B!

👍 ↩ 🚩 upvoted 3 times

⊟ 👤 **VMHarry** 9 months, 3 weeks ago

Selected Answer: D

GPU helps speeding up training process

👍 ↩ 🚩 upvoted 1 times

⊟ 👤 **vale_76_na_xxx** 10 months ago

Why no A?

👍 ↩ 🚩 upvoted 1 times

⊟ 👤 **mlx** 10 months, 2 weeks ago

B. Train your model using Vertex AI Training with CPUs.
No GPUs for ScikitLearn, but parrallelize/distribute training is a good way to increase model building

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