

Question #29

Topic 1

You have trained a model on a dataset that required computationally expensive preprocessing operations. You need to execute the same preprocessing at prediction time. You deployed the model on AI Platform for high-throughput online prediction. Which architecture should you use?

- A. Validate the accuracy of the model that you trained on preprocessed data. Create a new model that uses the raw data and is available in real time. Deploy the new model onto AI Platform for online prediction.
- B. Send incoming prediction requests to a Pub/Sub topic. Transform the incoming data using a Dataflow job. Submit a prediction request to AI Platform using the transformed data. Write the predictions to an outbound Pub/Sub queue.
- C. Stream incoming prediction request data into Cloud Spanner. Create a view to abstract your preprocessing logic. Query the view every second for new records. Submit a prediction request to AI Platform using the transformed data. Write the predictions to an outbound Pub/Sub queue.
- D. Send incoming prediction requests to a Pub/Sub topic. Set up a Cloud Function that is triggered when messages are published to the Pub/Sub topic. Implement your preprocessing logic in the Cloud Function. Submit a prediction request to AI Platform using the transformed data. Write the predictions to an outbound Pub/Sub queue.

Question #30

Topic 1

Your team trained and tested a DNN regression model with good results. Six months after deployment, the model is performing poorly due to a change in the distribution of the input data. How should you address the input differences in production?

- A. Create alerts to monitor for skew, and retrain the model.
- B. Perform feature selection on the model, and retrain the model with fewer features.
- C. Retrain the model, and select an L2 regularization parameter with a hyperparameter tuning service.
- D. Perform feature selection on the model, and retrain the model on a monthly basis with fewer features.

You need to train a computer vision model that predicts the type of government ID present in a given image using a GPU-powered virtual machine on Compute

Engine. You use the following parameters:

- ☞ Optimizer: SGD
- ☞ Image shape = 224×224
- ☞ Batch size = 64
- ☞ Epochs = 10
- ☞ Verbose = 2

During training you encounter the following error: ResourceExhaustedError: Out Of Memory (OOM) when allocating tensor. What should you do?

- A. Change the optimizer.
- B. Reduce the batch size.
- C. Change the learning rate.
- D. Reduce the image shape.

You developed an ML model with AI Platform, and you want to move it to production. You serve a few thousand queries per second and are experiencing latency issues. Incoming requests are served by a load balancer that distributes them across multiple Kubeflow CPU-only pods running on Google Kubernetes Engine

(GKE). Your goal is to improve the serving latency without changing the underlying infrastructure. What should you do?

- A. Significantly increase the max_batch_size TensorFlow Serving parameter.
- B. Switch to the tensorflow-model-server-universal version of TensorFlow Serving.
- C. Significantly increase the max_enqueued_batches TensorFlow Serving parameter.
- D. Recompile TensorFlow Serving using the source to support CPU-specific optimizations. Instruct GKE to choose an appropriate baseline minimum CPU platform for serving nodes.

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