EXAM PROFESSIONAL MACHINE LEARNING ENGINEER TOPIC 1 QUESTION 214 DISCUSSI...

Actual exam question from Google's Professional Machine Learning Engineer
Question #: 214
Topic #: 1
[All Professional Machine Learning Engineer Questions]

You are developing an ML pipeline using Vertex AI Pipelines. You want your pipeline to upload a new version of the XGBoost model to Vertex AI Model Registry and deploy it to Vertex AI Endpoints for online inference. You want to use the simplest approach. What should you do?

A. Use the Vertex AI REST API within a custom component based on a vertex-ai/prediction/xgboost-cpu image

B. Use the Vertex AI ModelEvaluationOp component to evaluate the model

C. Use the Vertex AI SDK for Python within a custom component based on a python:3.10 image

D. Chain the Vertex AI ModelUploadOp and ModelDeployOp components together

Show Suggested Answer

by pikachu007 at *Jan. 13, 2024, 6:01 a.m.*

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fitri001 6 months, 3 weeks ago

Selected Answer: D

Built-in Functionality: Both ModelUploadOp and ModelDeployOp are pre-built components within Vertex AI Pipelines specifically designed for uploading models and deploying them to endpoints.
Ease of Use: These components offer a user-friendly interface within the pipeline definition. You only need to specify essential details like the model path, container image URI (pre-built for XGBoost is available), endpoint configuration, etc.
Reduced Code Complexity: Using these components eliminates the need for writing custom code within your pipeline for model upload and deployment, simplifying your pipeline logic.

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why not the others?
A. Custom Component with Vertex AI REST API: While this approach provides flexibility, it requires writing custom code to interact with the Vertex AI REST API within a container image. This adds complexity compared to using pre-built components.
B. ModelEvaluationOp: This component is designed for model evaluation within the pipeline, not for uploading or deploying models.
C. Custom Component with Python SDK: Similar to option A, using the Python SDK within a custom component offers flexibility but requires writing more code compared to using the pre-built ModelUploadOp and ModelDeployOp components.

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pinimichele01 7 months ago

Selected Answer: D

https://cloud.google.com/vertex-ai/docs/pipelines/model-endpoint-component

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shadz10 9 months, 3 weeks ago

Selected Answer: D

https://cloud.google.com/vertex-ai/docs/pipelines/model-endpoint-component

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pikachu007 9 months, 3 weeks ago

Selected Answer: D

A. Custom Component with REST API: This involves more manual coding and understanding of REST API endpoints, potentially increasing complexity and maintenance.
B. ModelEvaluationOp: This component is primarily for model evaluation, not model upload and deployment.
C. Custom Component with SDK: While feasible, it involves more setup and dependency management compared to using built-in components.

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