

INTRODUCTION TO VERTEX AI BY GOOGLE

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Outline

About Me

Yogesh Haribhau Kulkarni

Bio:

- ▶ 20+ years in CAD/Engineering software development
- ▶ Got Bachelors, Masters and Doctoral degrees in Mechanical Engineering (specialization: Geometric Modeling Algorithms).
- ▶ Currently doing Coaching in fields such as Data Science, Artificial Intelligence Machine-Deep Learning (ML/DL) and Natural Language Processing (NLP).
- ▶ Feel free to follow me at:
 - ▶ Github (github.com/yogeshhk)
 - ▶ LinkedIn (www.linkedin.com/in/yogeshkulkarni/)
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Office Hours:
Saturdays, 2 to 5pm
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Vertex AI

Introduction

- ▶ Vertex AI is a unified machine learning (ML) platform that helps you build, deploy, and scale ML models.
- ▶ It provides a single, integrated experience for the entire ML lifecycle, from data preparation to model training to deployment.
- ▶ Vertex AI is built on top of Google Cloud's infrastructure, so you can be confident that your models will be scalable, reliable, and secure.

Concepts

- ▶ **Datasets:** Datasets are the foundation of Vertex AI. They store your data in a format that Vertex AI can understand and use.
- ▶ **Models:** Models are the output of the ML training process. They are mathematical representations of the relationships between your data and the desired output.
- ▶ **Endpoints:** Endpoints are the way that you make predictions from your models. They are hosted in the cloud and can be accessed by your applications.

Framework

- ▶ AutoML: AutoML is a codeless service that can automatically train and deploy ML models for you.
- ▶ Kubeflow Pipelines: Kubeflow Pipelines is a framework for building and deploying ML pipelines.
- ▶ TensorFlow: TensorFlow is an open-source framework for machine learning.

Applications

- ▶ Image classification: Vertex AI can be used to classify images, such as identifying objects in a photo.
- ▶ Natural language processing: Vertex AI can be used to process natural language, such as understanding the meaning of a sentence.
- ▶ Fraud detection: Vertex AI can be used to detect fraud, such as identifying fraudulent credit card transactions.

Conclusion

- ▶ Vertex AI is a powerful ML platform that can help you build, deploy, and scale ML models.
- ▶ It is a comprehensive platform that provides a single, integrated experience for the entire ML lifecycle.
- ▶ Vertex AI is built on top of Google Cloud's infrastructure, so you can be confident that your models will be scalable, reliable, and secure.

Thanks ...

- ▶ Search "**Yogesh Haribhau Kulkarni**" on Google and follow me on LinkedIn and Medium
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