Training: Google Cloud
Introduction to Vertex AI Search for Commerce

Google Cloud

TRAINING GOALS:

In this course you will explore Vertex AI Search for commerce and how it can be used to improve customer experience. You will explore the core functionalities of Vertex AI Search for commerce with a discussion on common use cases and solutions before implementing a basic search app in Vertex AI Search for commerce. Afterwards, you will discuss how to manage data ingestion and quality for your search app, optimize recommendations with personalization, deploy your search app, monitor and analyze search performance, and discuss advanced features and general best practices.

What you'll learn

- Understand the core functionalities of Vertex AI Search for commerce.
- Explore use cases and solutions using Vertex AI Search for commerce
- Implement data ingestion and quality pipelines for catalog and user event data
- Personalize search results and recommendations for customers
- Monitor search performance results
- Understand advanced features and best practices for Vertex AI Search for commerce

Audience

This course is primarily intended for Search Engineers, Data Engineers, and Data Scientists who wish to learn how to understand the core functionalities of Vertex AI Search for commerce.

Products

- Vertex AI
- Vertex AI Search'
- Gemini
- BigQuery
- Cloud Storage
- Dataflow

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CONSPECT:

- Introduction to Vertex AI Search for Commerce
  - Topics
    - Overview of Vertex AI Search for commerce
    - Key concepts for Vertex AI Search for commerce
    - Tour of Vertex AI Search for commerce in the Cloud Console
    - Example use cases
  - Objectives
    - Understand key concepts for Vertex AI Search for commerce
    - Leverage Vertex AI Search for commerce features and capabilities
    - Discover typical use cases for Vertex AI Search for commerce
  - Activities
    - Lab: Getting Started with Vertex AI Search for commerce
- Data Ingestion
  - Topics
    - Data ingestion pipelines
    - Data sources (Cloud Storage, BigQuery, Merchant Center)
    - Data transformations and pre-processing
  - Objectives
    - Ingest product data into Vertex AI Search for commerce using ETL pipelines
    - Track user events in real time
    - Manage ongoing updates to keep data fresh
  - Activities
    - Lab: Performing data transformations and validation
- Data Management
  - Topics
    - More on data transformations and pre-processing
    - Working with product metadata and attributes
    - Data quality and consistent updates
  - Objectives
    - Understand key product data structures for Vertex AI.
    - Identify essential attributes and their impact on AI performance.
    - Explore advanced data transformation techniques for catalogs.
    - Align product data with Google Cloud Retail schema for optimal results.
  - Activities

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- Lab: Managing and updating product metadata
- Search and Browse
  - Topics
    - Data Quality
    - Search and Browse Functionality Deep Dive
    - Results Personalization
    - Optimization Controls
  - Objectives
    - Distinguish search vs. browse functionalities
    - Understand search and browse performance tiers
    - Improve and maintain data quality
    - Describe ranking, optimization, and personalization
    - Identify key catalog and user event attributes
  - Activities
    - Lab: Personalizing Search Results with Vertex AI Search for commerce
- Recommendations
  - Topics
    - Recommendations Overview
    - Recommendation Models
    - Building a Recommendation Strategy
  - Objectives
    - Distinguish between different recommendation models
    - Correlate page types with optimization objectives
    - Build a strategy for implementing recommendations
- Deployment, Monitoring, and Testing
  - Topics
    - Serving Configurations and Controls
    - A/B Testing and Experimentation
    - Analytics
    - Monitoring
  - Objectives
    - Use serving configs and controls for model deployment
    - Validate deployment with previews
    - Monitor system health and metrics
    - Understand iterative optimization for Vertex AI Search for commerce
  - Activities

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- Lab: Implementing Recommendations AI Models and Configuring Retail Search

- Advanced Features
  - Topics
    - Query Expansion
    - Faceting and Filtering
    - Boosting Search Results
    - Vertex AI Search for commerce Integration with other Google Cloud Services
  - Objectives
    - Use query expansion to improve search recall
    - Implement dynamic faceting to help users refine results
    - Apply boost controls to influence product ranking
    - Integrate Vertex AI Search for commerce with other Google Cloud services
  - Activities
    - Lab: Implementing Advanced Search Features

REQUIREMENTS:

To get the most out of this course, participants are encouraged to have completed “Modernizing Retail and Ecommerce Solutions with Google Cloud” or to possess equivalent experience with Google Cloud.

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by Google Cloud (course completion).

TRAINER:

Authorized Google Cloud Trainer

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