

Scaling DataOps with NetApp AI Control Plane



Delivery: Instructor-led training (ILT)

Duration: 2 days

Course Description

Learn about the features and benefits of NetApp® AI Control Plane by using NetApp DataOps Toolkit and NetApp Astra™ Trident. Discover the advantages of NetApp software solutions to manage AI workloads. Examine machine learning (ML) models by using Jupyter Notebook, Kubeflow pipelines, and KServe. Explore modern transformer models performing generative AI (GenAI) and how to reduce hallucinations by fine-tuning models and implementing a retrieval-augmented generation (RAG) framework.

Written with Kubernetes v1.29, Astra Trident 24.06, NetApp DataOps Toolkit 2.5.0, and KubeFlow 1.8.1, this course prepares you to leverage NetApp solutions with artificial intelligence workloads.

Role

Systems administrator, architect, and integration engineer

Prerequisites

Experience with ONTAP, Kubernetes, and Astra Trident

Objectives

This course focuses on enabling you to do the following:

- Describe the advantages of using NetApp AI software solutions to manage inferencing workloads
- Install data operations (DataOps) tools
- Use NetApp DataOps Toolkit to manage storage in inferencing pipelines
- Build generative AI (GenAI) solutions using NetApp solutions
- Discuss how to scale out and scale up inferencing workloads using NetApp solutions

Course Content

This course includes the following modules, lessons, and exercises:

Module	Lessons	Exercises
Module 1: Introduction	<ul style="list-style-type: none">• Introduction to AI• Inference modeling• DataOps• NetApp and DataOps	Installing the prerequisites for NetApp AI Control Plane
Module 2: Installation	<ul style="list-style-type: none">• Kubeflow• NetApp DataOps Toolkit	Running Kubeflow
Module 3: DataOps	<ul style="list-style-type: none">• Model lifecycle• DataOps methodology• DataOps tasks• Case study	Performing DataOps tasks using NetApp AI Control Plane
Module 4: DataOps in generative AI	<ul style="list-style-type: none">• Transformer models• Selecting a transformer model• Inferencing and modifying output	Working with a transformer model
Module 5: DataOps at scale	<ul style="list-style-type: none">• Scaling ML projects• Hardware solutions• Cloud solutions and services	

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