

KOENIG SOLUTIONS • COURSE OUTLINE

DP-3014: Build Machine Learning Solutions Using Azure Databricks

Learn to prepare data, train and tune models, and use MLflow and AutoML for machine learning on Azure Databricks.

1 Day

8 HOURS

6

MODULES

14

TOPICS

COURSE OVERVIEW

This course covers the Azure Databricks platform as a managed data lake analytics environment built on open-source technologies and integrated with Azure. It then addresses preparing data, training and evaluating machine learning models, and using MLflow to log experiment runs and manage and deploy trained models. It continues with tuning hyperparameters using the Hyperopt library and distributing tuning across worker nodes, and using the AutoML interface and API. It concludes with training deep learning models and distributing training using the Horovod library.

WHO THIS COURSE IS FOR

Data Scientists

Machine Learning Engineers

Data Engineers

Data Analysts

LEARNING OBJECTIVES

- Describe Azure Databricks as a managed data lake analytics platform
- Explain how Azure Databricks integrates with Azure for security
- Apply data preparation techniques for machine learning
- Train and evaluate a machine learning model
- Use MLflow to log parameters, metrics and experiment details
- Deploy trained models using MLflow
- Apply the Hyperopt library to tune hyperparameters
- Use AutoML through its interface and API

6 Modules, 14 Topics

01

Explore Azure Databricks

TOPICS

- Fully-managed data lake analytics platform
- Based on open-source technologies
- Integrated with Azure for resource management and security

02

Train a Machine Learning Model in Azure Databricks

TOPICS

Prepare data for machine learning · Train a machine learning model · Evaluate a machine learning model

03

Use MLflow in Azure Databricks

TOPICS

- Use MLflow to log parameters, metrics, and other details from experiment runs
- Use MLflow to manage and deploy trained models

04

Tune Hyperparameters in Azure Databricks

TOPICS

- Use the Hyperopt library to optimize hyperparameters
- Distribute hyperparameter tuning across multiple worker nodes

05

Use AutoML in Azure Databricks

TOPICS

- Use the AutoML user interface in Azure Databricks
- Use the AutoML API in Azure Databricks

06

Train Deep Learning Models in Azure Databricks

TOPICS

- Train a deep learning model in Azure Databricks
- Distribute deep learning training by using the Horovod library

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Hands-on exercises throughout the course
- Delivery by certified instructors and subject matter experts
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

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Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

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