

# BUILD MACHINE LEARNING SOLUTIONS USING AZURE DATABRICKS (DP-3014)

Course Code: 834020

Built as a joint effort by Microsoft and the team that started Apache Spark, Azure Databricks provides data science, engineering, and analytical teams with a single platform for big data processing and machine learning. In this course, you'll learn how to use Azure Databricks to train and deploy machine learning models.

## What You'll Learn

Students will learn to,

- Explore Azure Databricks
- Use Apache Spark in Azure Databricks
- Train a machine learning model in Azure Databricks
- Use MLflow in Azure Databricks
- Tune hyperparameters in Azure Databricks
- Use AutoML in Azure Databricks
- Train deep learning models in Azure Databricks
- Manage machine learning in production with Azure Databricks

## Who Needs to Attend

Data scientists and machine learning engineers.

## Prerequisites

This learning path assumes that you have experience of using Python to explore data and train machine learning models with common open source frameworks, like Scikit-Learn, PyTorch, and TensorFlow. Consider completing the Create machine learning models learning path before starting this one.

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CLASSROOM LIVE

\$675 CAD

1 Day

## Classroom Live Outline

### Module 1 : Explore Azure Databricks

- Provision an Azure Databricks workspace.
- Identify core workloads and personas for Azure Databricks.
- Use Data Governance tools Unity Catalog and Microsoft Purview
- Describe key concepts of an Azure Databricks solution.

### Module 2 : Use Apache Spark in Azure Databricks

- Describe key elements of the Apache Spark architecture.
- Create and configure a Spark cluster.
- Describe use cases for Spark.
- Use Spark to process and analyze data stored in files.
- Use Spark to visualize data.

### Module 3 : Train a machine learning model in Azure Databricks

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

### Module 4 : Use MLflow in Azure Databricks

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

### Module 5 : Tune hyperparameters in Azure Databricks

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

### Module 6 : Use AutoML in Azure Databricks

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

**Module 7 : Train deep learning models in Azure Databricks**

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

**Module 8 : Manage machine learning in production with Azure Databricks**

- Automate feature engineering and data pipelines
- Model development and training
- Model deployment strategies
- Model versioning and lifecycle management



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VIRTUAL CLASSROOM LIVE

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Feb 13 - 13, 2026 | 9:00 AM - 5:00 PM EST

Apr 17 - 17, 2026 | 9:00 AM - 5:00 PM EDT

Sep 18 - 18, 2026 | 9:00 AM - 5:00 PM EDT



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PRIVATE GROUP TRAINING

1 Day

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