

## Build machine learning solutions using Azure Databricks (DP-3014)

Cursusduur: 1 Dag    Cursuscode: M-DP3014    Trainingsmethode: Virtueel & Klassikaal

### Beschrijving:

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.

#### Virtueel en Klassikaal™

Virtueel en Klassikaal™ is een eenvoudig leerconcept en biedt een flexibele oplossing voor het volgen van een klassikale training. Met Virtueel en Klassikaal™ kunt u zelf beslissen of u een klassikale training virtueel (vanuit huis of kantoor) of fysiek op locatie wilt volgen. De keuze is aan u! Cursisten die virtueel deelnemen aan de training ontvangen voor aanvang van de training alle benodigde informatie om de training te kunnen volgen.

### Doelgroep:

Data scientists and machine learning engineers.

### Doelstelling:

- 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

### Vereiste kennis en vaardigheden:

- 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.

## Cursusinhoud:

### 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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## Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk 030 - 60 89 444

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