Azure Machine Learning DP 100

Instructors:

Imran:

Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum:

Set up Azure Machine Learning Workspace

• Understand the AzureMLService Architecture

• Create the AzureML Workspace

• View and Manage Workspace Settings

• Overview of New AzureML Studio

• What is AzureML Datastore and Dataset

• Create and Register a Datastore

• Create a Dataset

• Explore the AzureML Dataset

• Understanding the AzureML Compute Resources

• Create a Compute Cluster and Compute Instance

Model Training and Run Experiment

• What is an AzureML Pipeline

• Create a pipeline using AzureML Designer

• Submit the Designer Pipeline run

Deploy and Consume the Models

• Create an Inference Pipeline

• Deploy a real-time endpoint using Designer

• Consume Model

• Create a batch inference pipeline using Designer

• Run a Batch Inference Pipeline from Designer

• Result

Data Processing using AzureML Designer

• Get Data to the workspace

• Import Data to the workspace from external sources

• Edit Metadata - Column Names

• Understanding the Run

• Edit Metadata - Data Type

• Export Data to the Blob Storage

• Add Columns to the Dataset

• Add Rows to the Dataset

• Normalization of Data Part 1

• Normalization of Data Part 2

• Clean Missing Data

• Partition and Sample Data Part 1

• Partition and Sample Data Part 2

Azure Machine Learning with Azure

• Introduction to AzureML SDK

Set Up Azure Machine Learning Workspace using sdk

• Create AzureML Workspace using SDK part 1

• Verify the Workspace and Write the Workspace Config File

• Create and Register a Datastore using AzureML SDK

• Create and Register a Dataset using SDK part 1

• Create and Register a Dataset using SDK part 2

• Access Workspace, Datastore and Datasets using SDK

• Pandas Dataframe and AzureML Dataset conversions

• Upload local data to storage account via datastore

Run Experiments and Train Models

• Set up

• Overview of Architecture

• Create Sample Experiment part 1

• Create Sample Experiment part 2

• Run Sample Experiment

• Azureml Environment part 1

• Azureml Environment part 2

• Azureml Environment part 3

• Azureml Environment part 4

• Azureml Environment part 5

• Train and Run a Model Script in AzureML Part 1

• Train and Run a Model Script in AzureML Part 2

• Train and Run a Model Script in AzureML Part 3

• Provisioning Compute Cluster Using SDK Part 1

• Provisioning Compute Cluster Using SDK Part 2

• Automate Model Training using AzureML SDK

• Define Pipeline Steps

• Define Training Steps

• Built the pipeline

• Command Line Arguments

• Data preparation script

• Training script

• Run the pipeline part 1

• Run the pipeline part 2

• Run the pipeline part 3

Using Python Scripts in AzureML

• Simple Python Script in Designer

• Execute Python Script using Zip Bundle

• Execute Python Script using Zip Bundle Demo