

Perform Cloud Data Science with Azure Machine Learning (20774)

- **Formato do curso:** Presencial
- **Localidade:** Porto
- **Data:** 04 Fev. 2019 a 08 Fev. 2019
- **Preço:** 1740€
- **Horário:** Laboral - das 09h30 às 17h30
- **Duração:** 35 horas

The main purpose of the course is to give students the ability to analyze and present data by using Azure Machine Learning, and to provide an introduction to the use of machine learning with big data tools such as HDInsight and R Services.

Destinatários

The primary audience for this course is people who wish to analyze and present data by using Azure Machine Learning.

The secondary audience is IT professionals, Developers , and information workers who need to support solutions based on Azure machine learning.

Pré-requisitos

- Programming experience using R, and familiarity with common R packages
- Knowledge of common statistical methods and data analysis best practices.
- Basic knowledge of the Microsoft Windows operating system and its core functionality.
- Working knowledge of relational databases.

Objectivos

- Explain machine learning, and how algorithms and languages are used
- Describe the purpose of Azure Machine Learning, and list the main features of Azure Machine Learning Studio

- Upload and explore various types of data to Azure Machine Learning
 - Explore and use techniques to prepare datasets ready for use with Azure Machine Learning
 - Explore and use feature engineering and selection techniques on datasets that are to be used with Azure Machine Learning
 - Explore and use regression algorithms and neural networks with Azure Machine Learning
 - Explore and use classification and clustering algorithms with Azure Machine Learning
 - Use R and Python with Azure Machine Learning, and choose when to use a particular language
 - Explore and use hyperparameters and multiple algorithms and models, and be able to score and evaluate models
 - Explore how to provide end-users with Azure Machine Learning services, and how to share data generated from Azure Machine Learning models
 - Explore and use the Cognitive Services APIs for text and image processing, to create a recommendation application, and describe the use of neural networks with Azure Machine Learning
 - Explore and use HDInsight with Azure Machine Learning
 - Explore and use R and R Server with Azure Machine Learning, and explain how to deploy and configure SQL Server to support R services
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Programa

Introduction to Machine

- What is machine learning?
- Introduction to machine learning algorithms
- Introduction to machine learning languages

Introduction to Azure Machine

- Azure machine learning overview
- Introduction to Azure machine learning studio
- Developing and hosting Azure machine learning applications

Managing Datasets

- Categorizing your data
- Importing data to Azure machine learning
- Exploring and transforming data in Azure machine learning

Preparing Data for use with Azure Machine Learning

- Data pre-processing
- Handling incomplete datasets

Using Feature Engineering and Selection

- Using feature engineering
- Using feature selection

Building Azure Machine Learning Models

- Azure machine learning workflows
- Scoring and evaluating models
- Using regression algorithms
- Using neural networks

Using Classification and Clustering with Azure machine learning models

- Using classification algorithms
- Clustering techniques
- Selecting algorithms

Using R and Python with Azure Machine Learning

- Using R
- Using Python
- Incorporating R and Python into Machine Learning experiments

Initializing and Optimizing Machine Learning Models

- Using hyper-parameters
- Using multiple algorithms and models
- Scoring and evaluating Models

Using Azure Machine Learning Models

- Deploying and publishing models
- Consuming Experiments

Using Cognitive Services

- Cognitive services overview
- Processing language
- Processing images and video
- Recommending products

Using Machine Learning with HDInsight

- Introduction to HDInsight
- HDInsight cluster types
- HDInsight and machine learning models

Using R Services with Machine Learning

- R and R server overview
- Using R server with machine learning
- Using R with SQL Server