

Using the New Development Environment



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Overview



Data Science Virtual Machine

Iris classification demo

Git

Shared file system

Virtual Machine backups



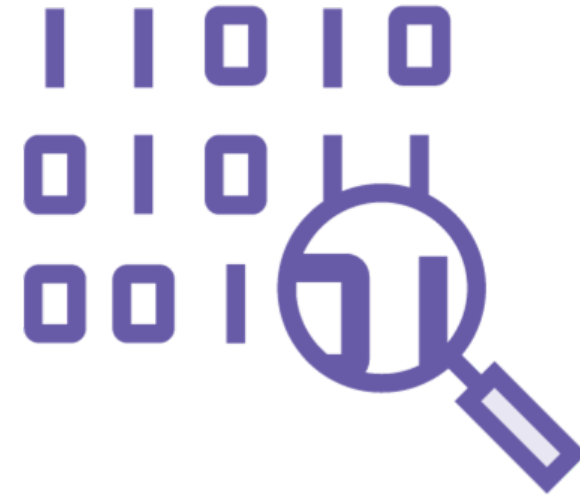
Running a Test Experiment



Running a Test Experiment



Data Science Virtual Machine



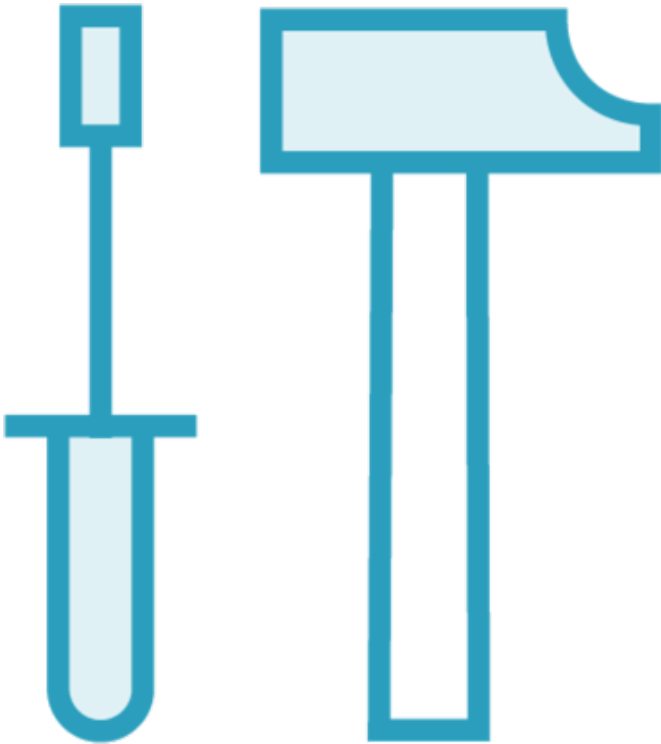
Iris classification demo

Data Science Virtual Machine

A customized VM image on the Azure cloud platform built specifically for doing data science. It has many popular data science and other tools pre-installed and pre-configured to jump-start building intelligent applications for advanced analytics.



Tools



Visual Studio 2019

Visual Studio Code

RStudio Desktop & Server

Juno

Pycharm

Power BI Desktop



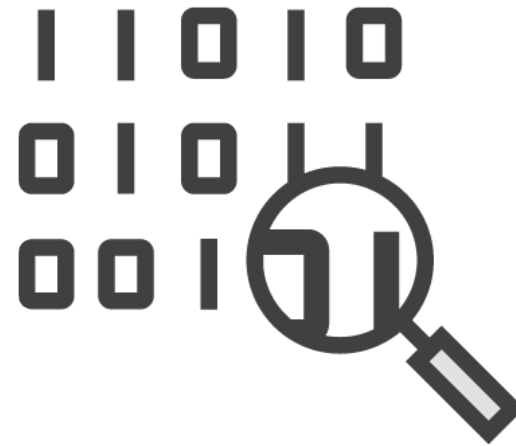
Programming Languages



Python



R



Julia



Others



TensorFlow

PyTorch

Keras

Caffe

Caffe2

Torch

MXNet Model Server

MXNet

Horovod



Theano
Chainer
Deep Water
NVIDIA DIGITS
nvidia-smi
TensorFlow Serving
TensorRT
Microsoft Cognitive
Toolkit



ML and Data Science Tools

**AML SDK for
Python**

XGBoost

Vowpal Wabbit

Weka

**LightGBM
H2O**

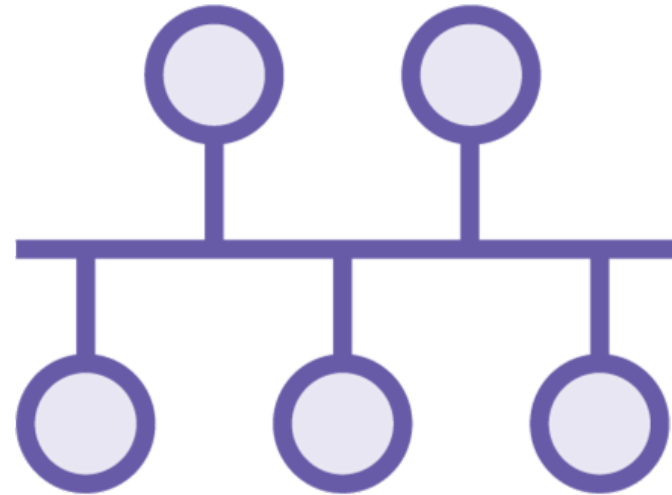
Rattle



Data Platforms



SQL Server 2016 Developer Edition



Apache Spark 2.x

Ingestion Tools



AdlCopy

Azure CLI

AzCopy

Azure Cosmos DB Data Migration tool

bcp

blobfuse

Microsoft Data Management Gateway

Demo



Explore Data Science Virtual Machine

Iris in Python

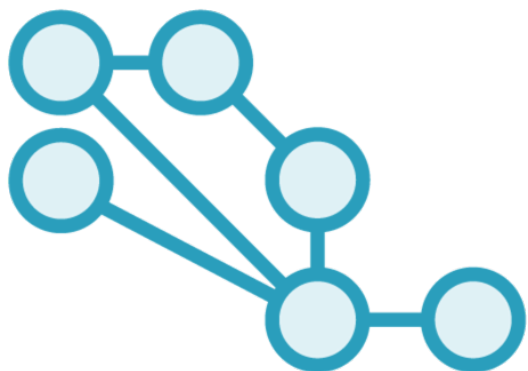
Iris in R



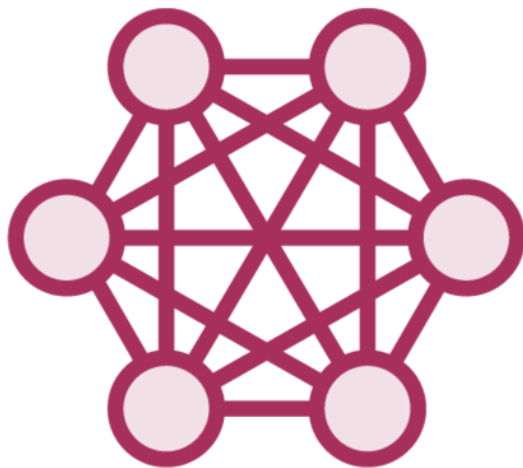
Saving Work



Saving Work



Git



Shared file system



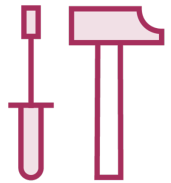
Virtual Machine
Backups



Git



Visual Studio



Pycharm



Other



Azure Files

Azure Files offers fully managed file shares in the cloud that are accessible via the industry standard Server Message Block (SMB) protocol. Azure file shares can be mounted concurrently by cloud or on-premises deployments of Windows, Linux, and macOS.



Azure Files

Shared access

Fully managed

**Scripting and
tooling**

Resiliency

**Familiar
programmability**



Azure Backup service

The Azure Backup service backs up data to the Microsoft Azure cloud. You can back up on-premises machines and workloads, and Azure virtual machines (VMs).





Offload on-premises backup

Back up Azure IaaS VMs

Scale easily

Get unlimited data transfer

Keep data secure

Get app-consistent backups

Retain short and long-term data

Automatic storage management

Multiple storage options



Demo



Setup Automatic Backups for DSVM



Review



Intro to data science

Getting started

Tools

Setting up

Versioning

Test Experiment

