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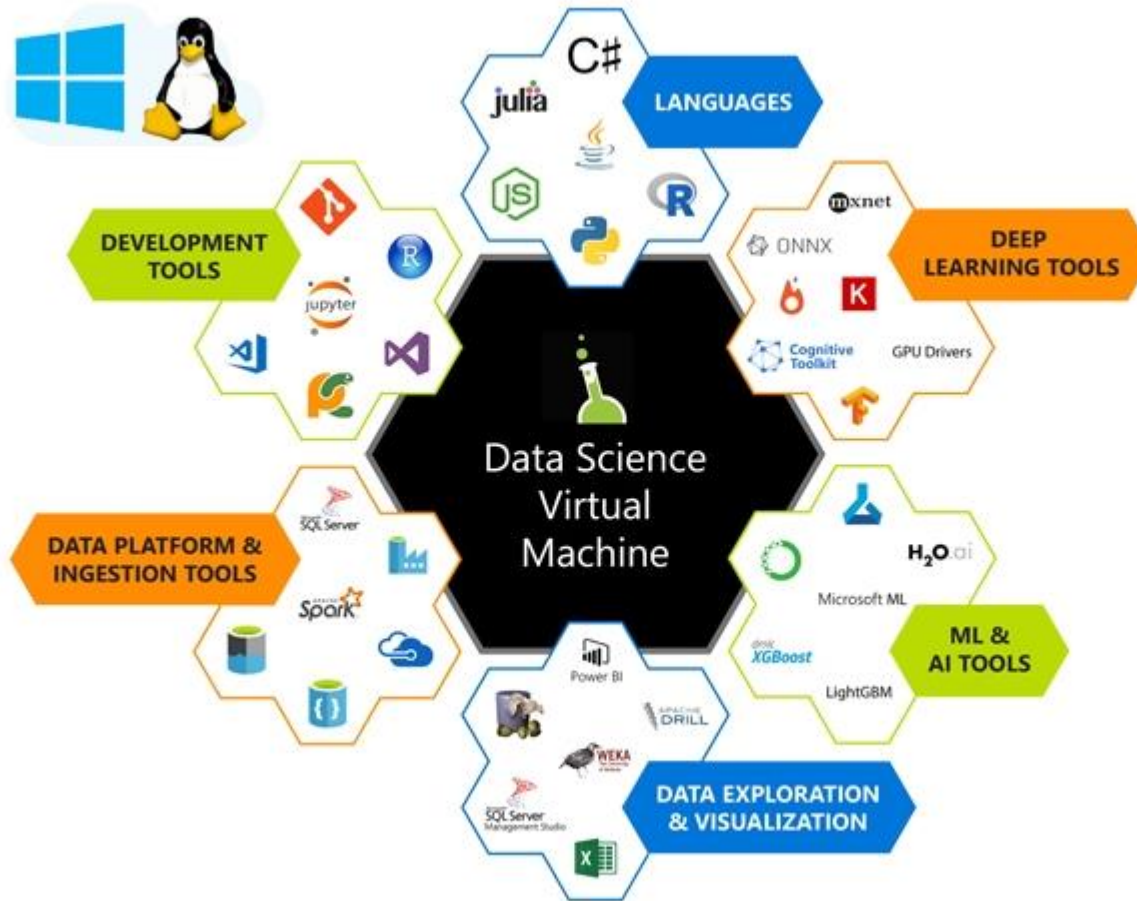
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Explore Data Science VM

Pre-Configured environments in the cloud for Data Science and AI Development.

DSVMs are Azure Virtual Machine images, pre-installed, configured and tested with several popular tools that are commonly used for data analytics, machine learning and AI training.

What is DSVM?

The Data Science Virtual Machine (DSVM) is a customized VM image on Microsoft's Azure cloud 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.

It is available on Windows Server and Linux.

What can I do?

The goal of the Data Science Virtual Machine (DSVM) is to provide data professionals of all skill levels and across industries with a friction-free, pre-configured, and fully-integrated data science environment.

After your DSVM has been allocated, you can immediately begin working on your data science project.

The Data Science VM is designed and configured for working with a broad range of usage scenarios.

You can scale your environment up or down as your project needs change, use your preferred language to program data science tasks and install other tools to customize the system for your exact needs.

Preconfigured analytics desktop in the cloud

The Data Science VM provides a baseline configuration for data science teams looking to replace their local desktops with a managed cloud desktop.

This baseline ensures that all the data scientists on a team have a consistent setup with which to verify experiments and promote collaboration.

It also lowers costs by reducing the sysadmin burden and saving on the time needed to evaluate, install, and maintain the various software packages needed to do advanced analytics.

Data science training and education

Enterprise trainers and educators that teach data science classes usually provide a virtual machine image to ensure that their students have a consistent setup and that the samples work predictably.

The Data Science VM creates an on-demand environment with a consistent setup that eases the support and incompatibility challenges.

Cases where these environments need to be built frequently, especially for shorter training classes, benefit substantially.

On-demand elastic capacity for large-scale projects

Data science hackathons/competitions or large-scale data modeling and exploration require scaled out hardware capacity, typically for short duration.

The Data Science VM can help replicate the data science environment quickly on demand, on scaled out servers that allow experiments requiring high-powered computing resources to be run.

Short-term experimentation and evaluation

The Data Science VM can be used to evaluate or learn tools such as Microsoft ML Server, SQL Server, Visual Studio tools, Jupyter, deep learning / ML toolkits, and new tools popular in the community with minimal setup effort.

Since the Data Science VM can be set up quickly, it can be applied in other short-term usage scenarios like replicating published experiments, executing demos, following walkthroughs in online sessions and conference tutorials.

Why Deep Learning Virtual Machine?

Deep learning requires large amount of computational power to train models with these large datasets.

With the cloud and availability of Graphical Processing Units (GPUs), it is becoming possible to build sophisticated deep neural architectures and train them on a large data set on powerful computing infrastructure on the cloud.

The Deep Learning Virtual Machine is a specially configured variant of the Data Science Virtual Machine (DSVM) to make it more straightforward to use GPU-based VM instances for training deep learning models.

It is supported on Windows 2016 and the Ubuntu Data Science Virtual Machine.

It shares the same core VM images (and hence all the rich toolset) as the DSVM but is configured to make deep learning easier.

The Azure Geo AI Data Science VM (Geo-DSVM) delivers geospatial analytics capabilities from Microsoft's Data Science VM.

Specifically, this VM extends the AI and data science toolkits in the Data Science VM by adding ESRI's market-leading ArcGIS Pro Geographic Information System.

Geo Artificial Intelligence Data Science Virtual Machine

The Geo AI Data Science VM is a product offering arising out of the collaboration between ESRI and Microsoft.

The result is a powerful environment that provides the ability to:

1. explore data with the most popular AI and data science tools
2. apply statistical analysis to data with geographical or spatial aspects
3. train models for predictive analytics using machine learning and deep learning algorithms
4. create rich visualization

It is supported on the Windows 2016 Data Science Virtual Machine.

Why Geo AI Data Science VM?

Integrating geography and location information with your data brings a powerful new dimension to understanding a world increasingly instrumented with IOT devices.

A wide range of applications exists in virtually every segment of civil society, whether commercial, governmental, academic, or not-for-profit activities.

Geospatial analytics provides robust tools for gathering, managing and analyzing geographic and location-based data and powerful visualization that can enable unique insights into the significance of such data.

Thanks

Questions?

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