

Custom Learnings

Day 23

Azure Machine Learning

Machine Learning: We train our models based on some data given to the machine.

Creation of Azure Machine Learning Service:

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the 'Microsoft Azure' logo, a search bar, and user information for 'Shellunext_1693422208...'. The main content area displays the 'Overview' page for the 'idashellml03' Azure Machine Learning workspace. A left-hand sidebar lists various management options like 'Activity log', 'Access control (IAM)', 'Tags', 'Diagnose and solve problems', 'Events', 'Settings', 'Networking', 'Properties', 'Locks', 'Monitoring', 'Alerts', 'Metrics', 'Diagnostic settings', and 'Logs'. The main panel shows 'Essentials' with details such as 'Resource group: RG_IDA_SHELL', 'East US', 'Subscription ID: 7179a1e4-9824-4360-9eda-2930d7e2dc08', and 'Subscription ID: idashellml036981102930'. It also provides a 'Studio web URL' and an 'Application Insights' link. A large graphic with the text 'Work with your models in Azure Machine Learning Studio' and a 'Launch studio' button is prominently displayed at the bottom.

Creation of Compute Cluster:

The screenshot displays the 'Azure AI | Machine Learning Studio' interface. The top navigation bar shows the user 'npunext-1680261698581' and the workspace 'idashellml03'. The left sidebar lists 'Authoring' tools (Notebooks, Automated ML, Designer, Prompt flow) and 'Assets' (Data, Jobs, Components, Pipelines, Environments, Models, Endpoints). The main area is titled 'Compute' and contains a notification about 'Kubernetes clusters'. Below this, there are tabs for 'Compute instances', 'Compute clusters', 'Kubernetes clusters', and 'Attached computes'. A 'New' button is visible. A table lists the existing compute clusters:

Name	State	Size	Location	Created on
idashellcompute	✔ Succeeded (0 nodes)	STANDARD_DS3_V2	eastus	Oct 3, 2023 9:30 AM

Types of ML Algorithms:

1. Supervised: Labelled data.
2. Unsupervised: Unlabeled data.
3. Semi-Supervised: Combination of above two. We take very less amount of labelled data and more amount of unlabeled data.
4. Reinforcement: Feedback based. Series of decision making based on action or feedback.

To choose an algorithm: We run our dataset on each algorithm and analyze the accuracy score. The highest accuracy scored algorithm is chosen.

Pipeline: We create pipeline to transform and run ML algorithms on the datasets.

