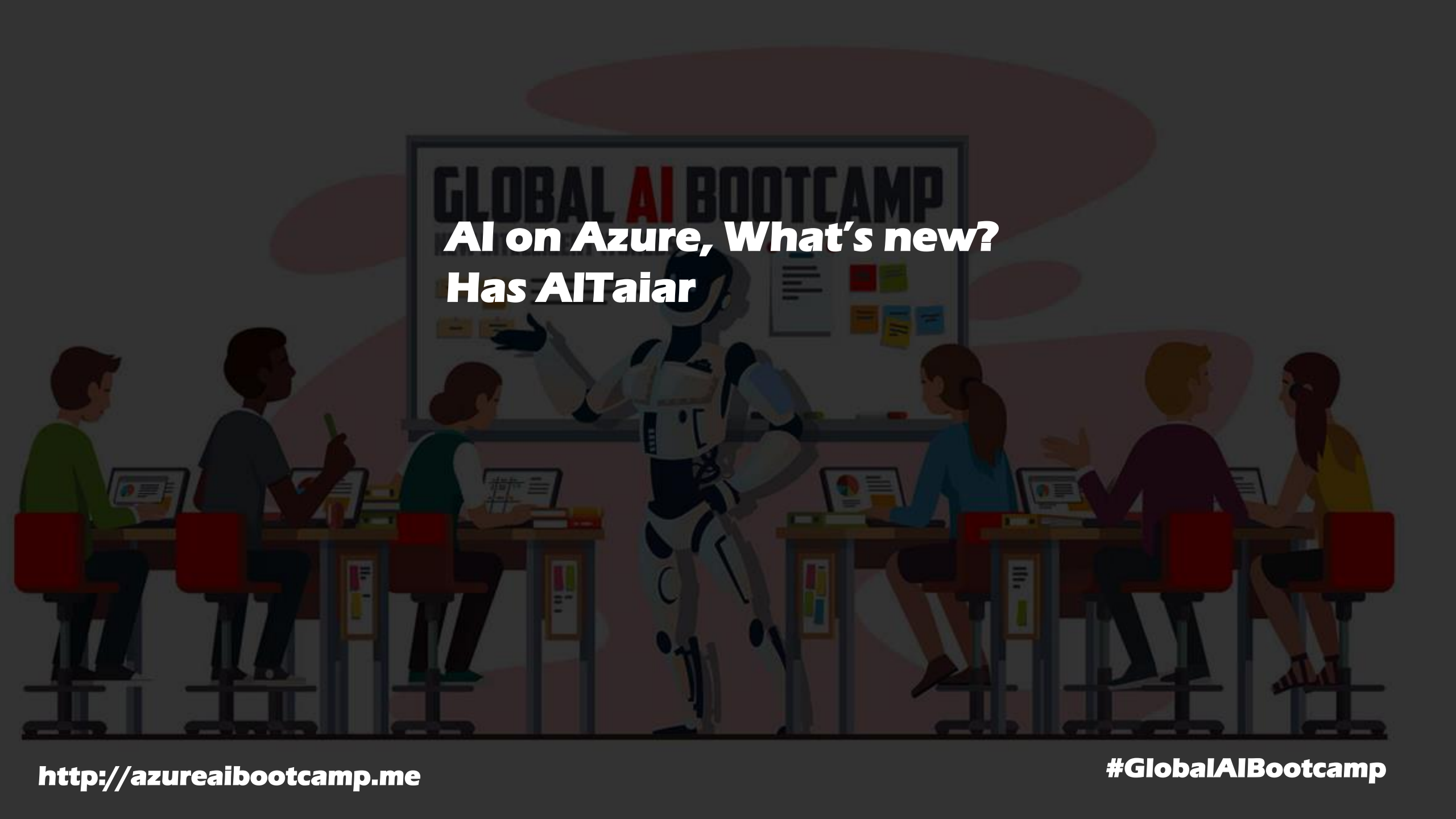


AI on Azure, What's new?
Has AITaiar

```python
import csv

if __name__ == "__main__":

    with open('data.csv', 'rb') as f:
        reader = csv.reader(f)
        data_as_list = list(reader)

    data_as_list.
```

- ★ append
- ★ extend
- ★ pop
- ★ sort
- ★ insert
- count
- index
- remove
- reverse
- __add__
- __base__
- __bases__

`list.append(self, value)`

L.append(object) -- append object to end

https://visualstudio.microsoft.com/services/intellicode/

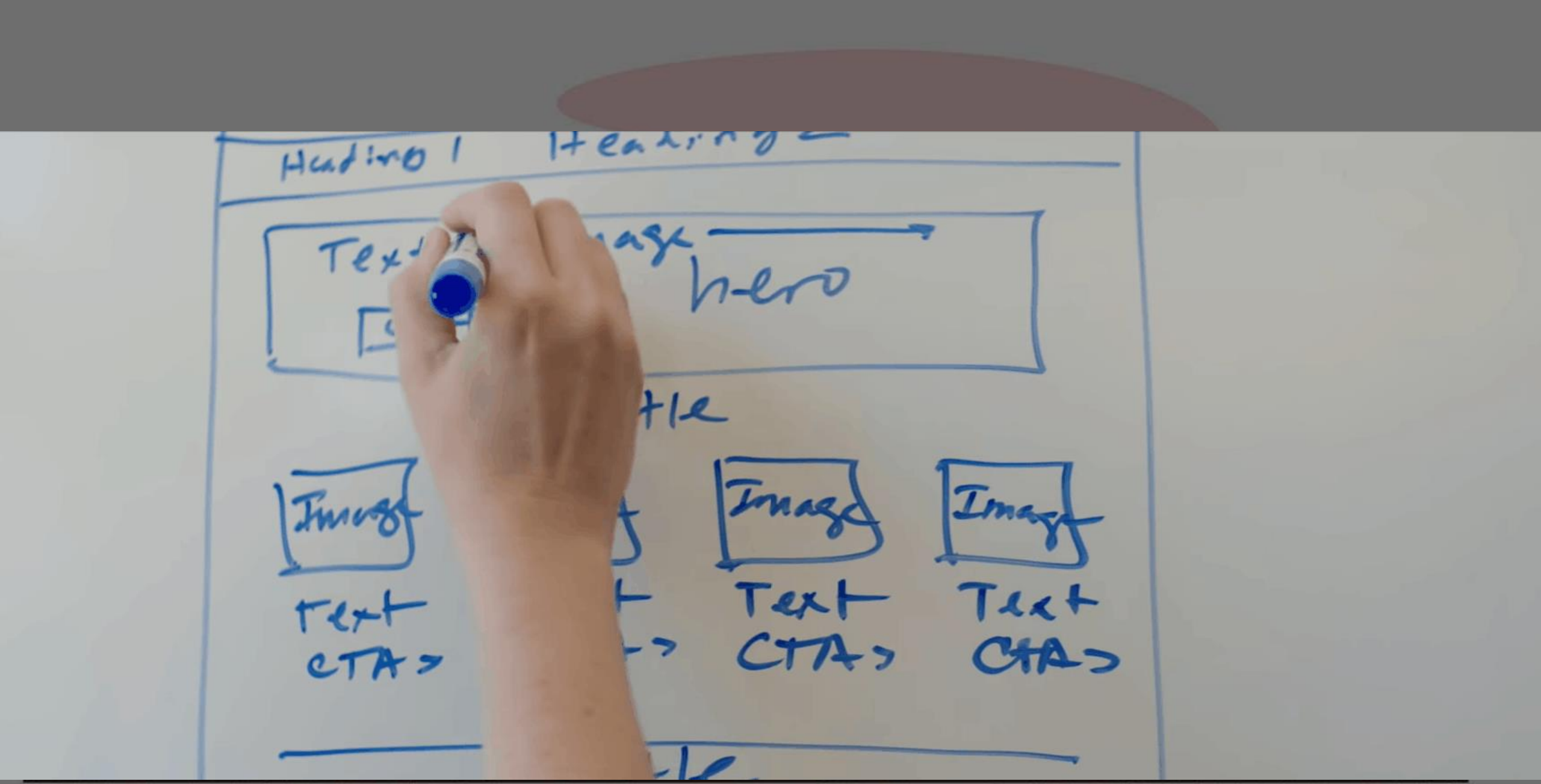
Does AI poetry do it for you?

ENGLISH	CHINESE
The rain is blowing through the sea	雨过海风一阵阵
A bird in the sky	撒向天空的小鸟
A night of light and calm	光明冷静的夜
Sunlight	太阳光明
Now in the sky	现在的天空中去
Cool heart	冷静的心头
The savage north wind	野蛮的北风起
When I found a new world	当我发现一个新的世界

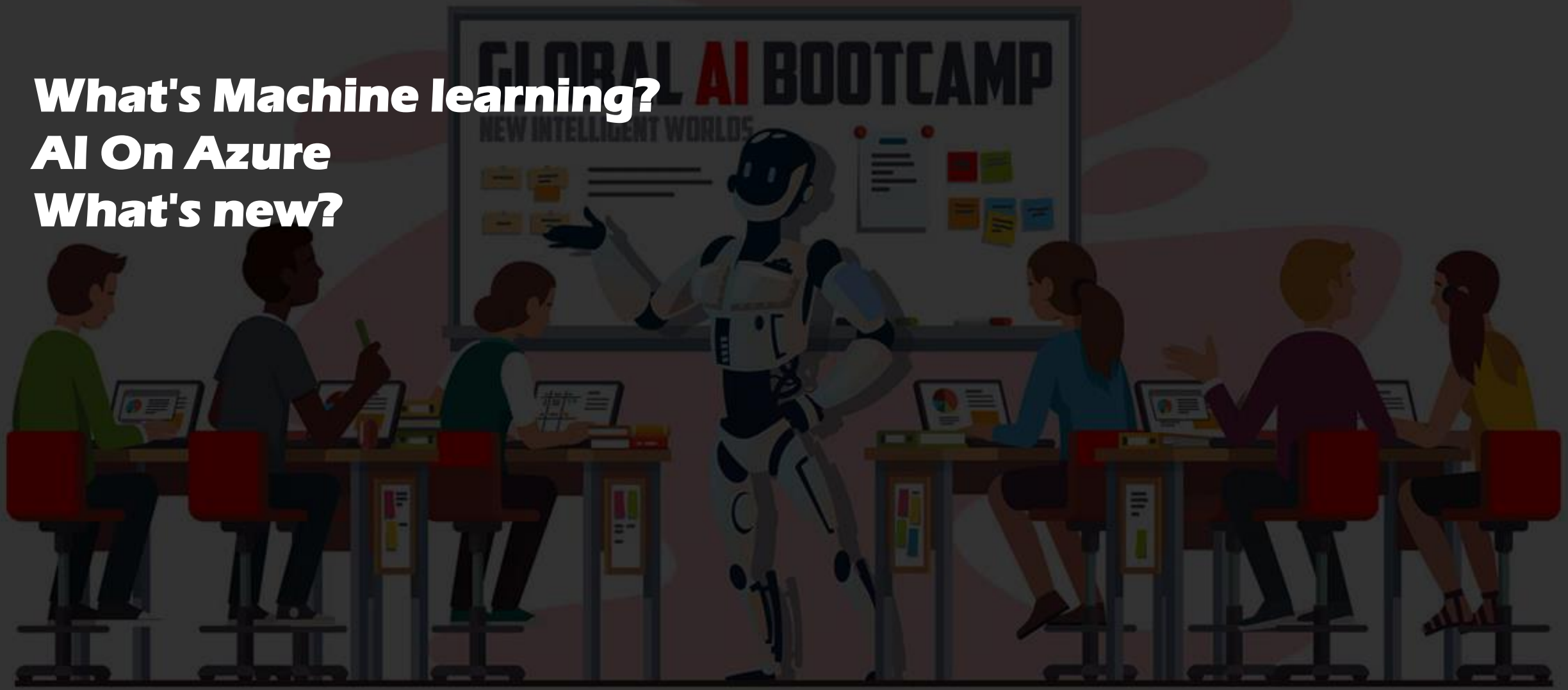
Translated to English using Microsoft's Bing Translator

SCMP

https://www.scmp.com/news/china/society/article/2097044/microsofts-ai-bot-has-published-book-poems-china-it-worth-reading


Heading 1
Text
Image
Hero
Image
Text
CTA>
Image
Text
CTA>
Image
Text
CTA>

What's Machine learning?
AI On Azure
What's new?



Machine Learning
"Programming the UnProgrammable"

$f(x)$ {

Is this a face?

$f(x)$ {

Price of Shirt?

"It has **exquisite** buttons … with **long sleeves** …works for casual as well as **business settings**"

Machine Learning
"Programming the UnProgrammable"

Machine Learning creates a

$f(x)$

Model

Using this data

Face

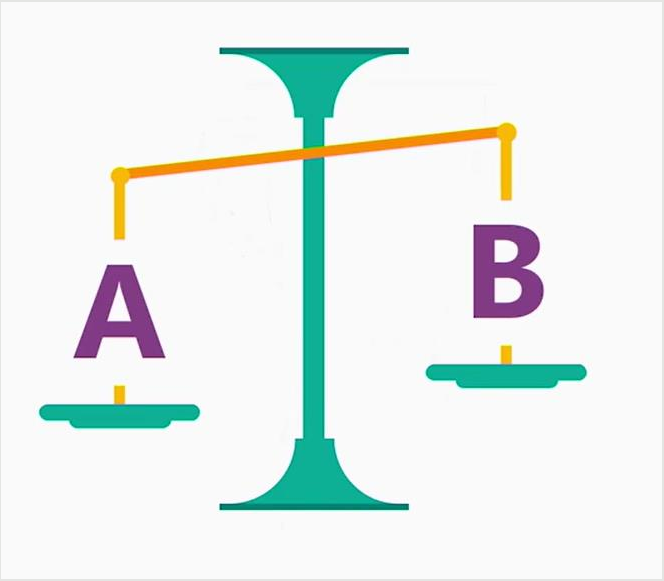
Face

Not a face

Not a face

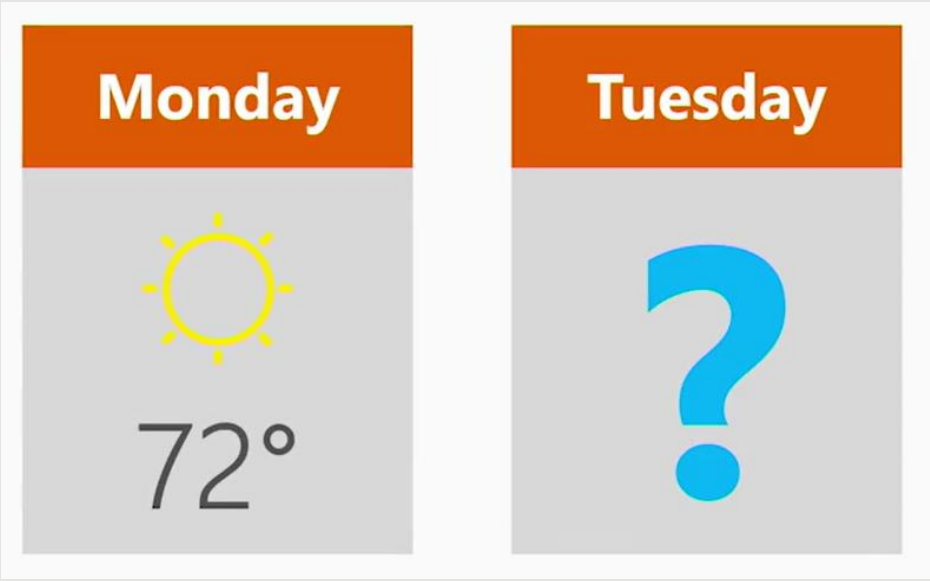
Many ML Tasks…

Is this A or B?



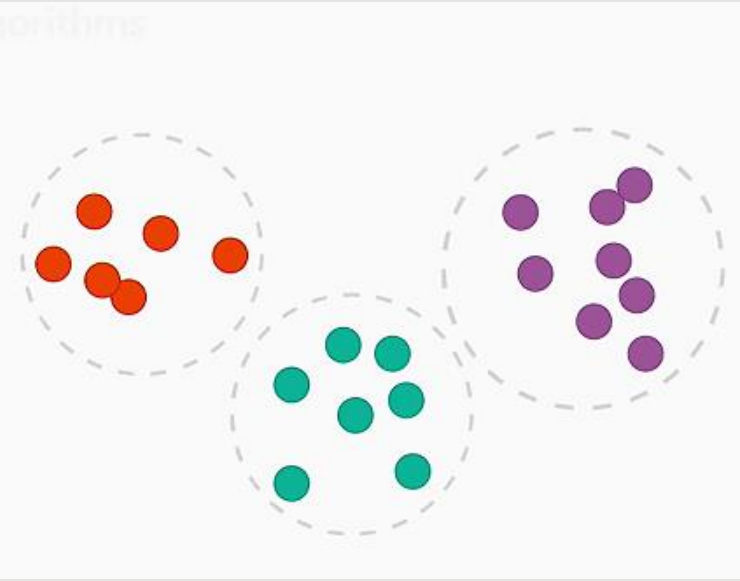
Classification

How much? How many?



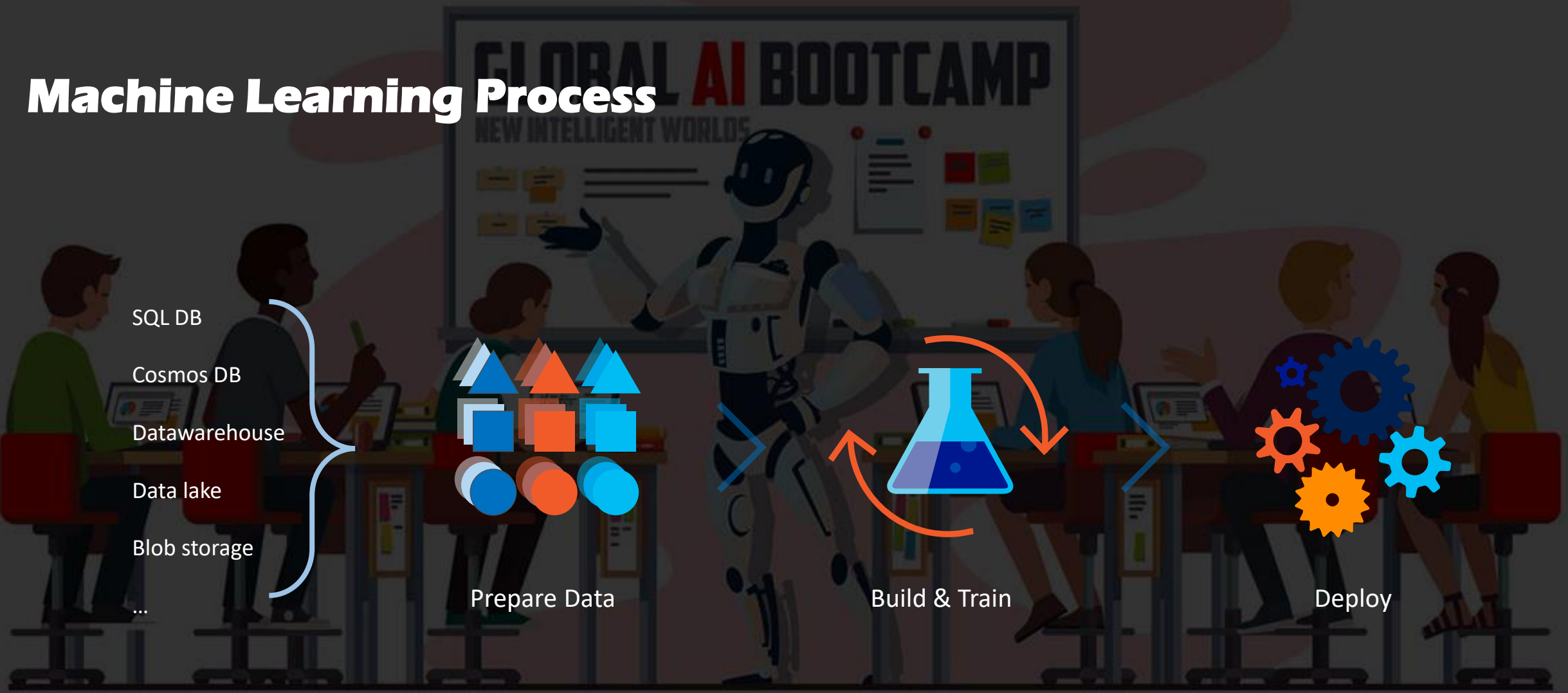
Regression

How is this organized?



Clustering

Machine Learning Process



SQL DB

Cosmos DB

Datawarehouse

Data lake

Blob storage

…

Prepare Data

Build & Train

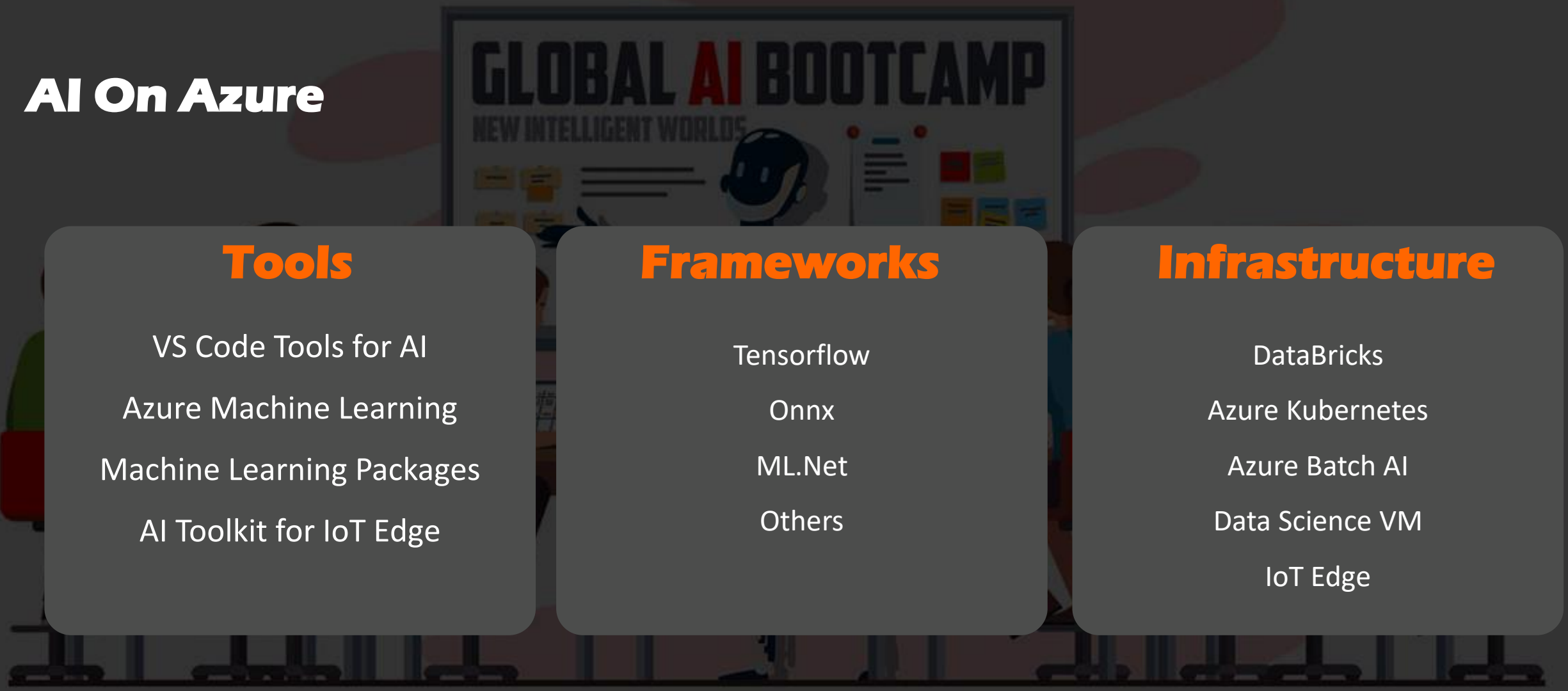
Deploy

AI On Azure

http://azureaibootcamp.me

#GlobalAIBootcamp

AI On Azure



Tools

VS Code Tools for AI

Azure Machine Learning

Machine Learning Packages

AI Toolkit for IoT Edge

Frameworks

Tensorflow

Onnx

ML.Net

Others

Infrastructure

DataBricks

Azure Kubernetes

Azure Batch AI

Data Science VM

IoT Edge

Pre-Built Services

Azure Cognitive Services

Powerful prebuilt AI models exposed as API services

Process images, video, speech, language and more

Simple REST APIs with .NET, Java, Python, Node SDKs

Deploy to the edge or on premises with container support

Vision

Speech

Language

Conversation

Bing Search

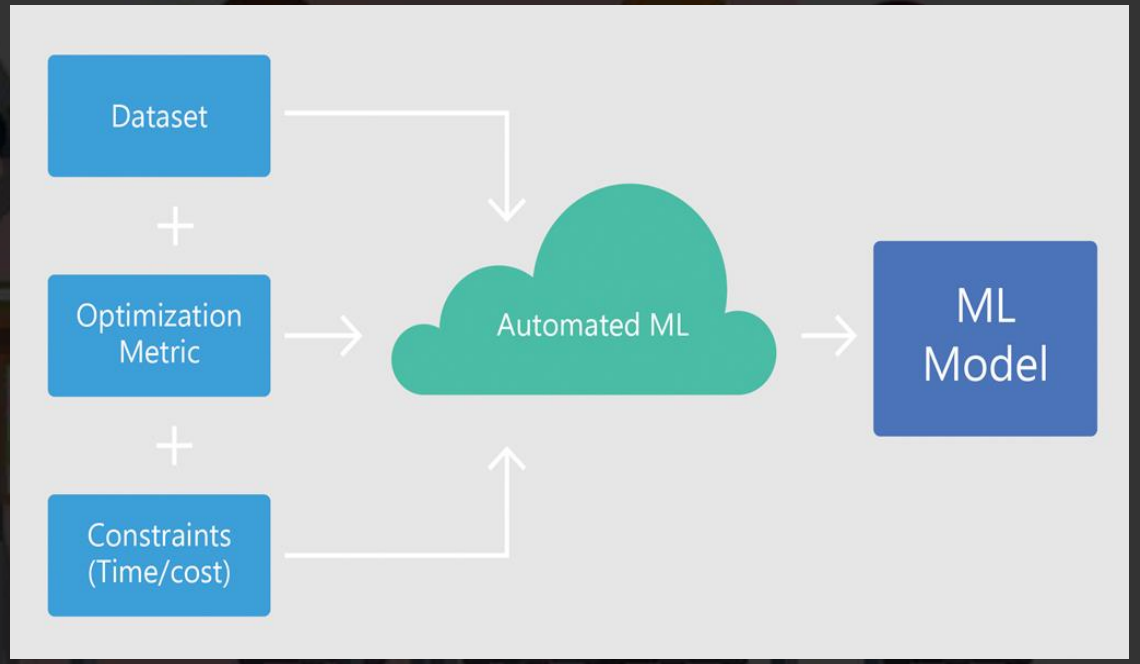
Knowledge

Azure Machine Learning Service

ONNX Runtime is now open source
https://azure.microsoft.com/en-us/blog/onnx-runtime-is-now-open-source/

Azure Machine learning Services goes GA
https://azure.microsoft.com/en-us/blog/azure-machine-learning-service-a-look-under-the-hood/

Azure Machine Learning – Auto ML
https://azure.microsoft.com/en-au/blog/announcing-automated-ml-capability-in-azure-machine-learning/



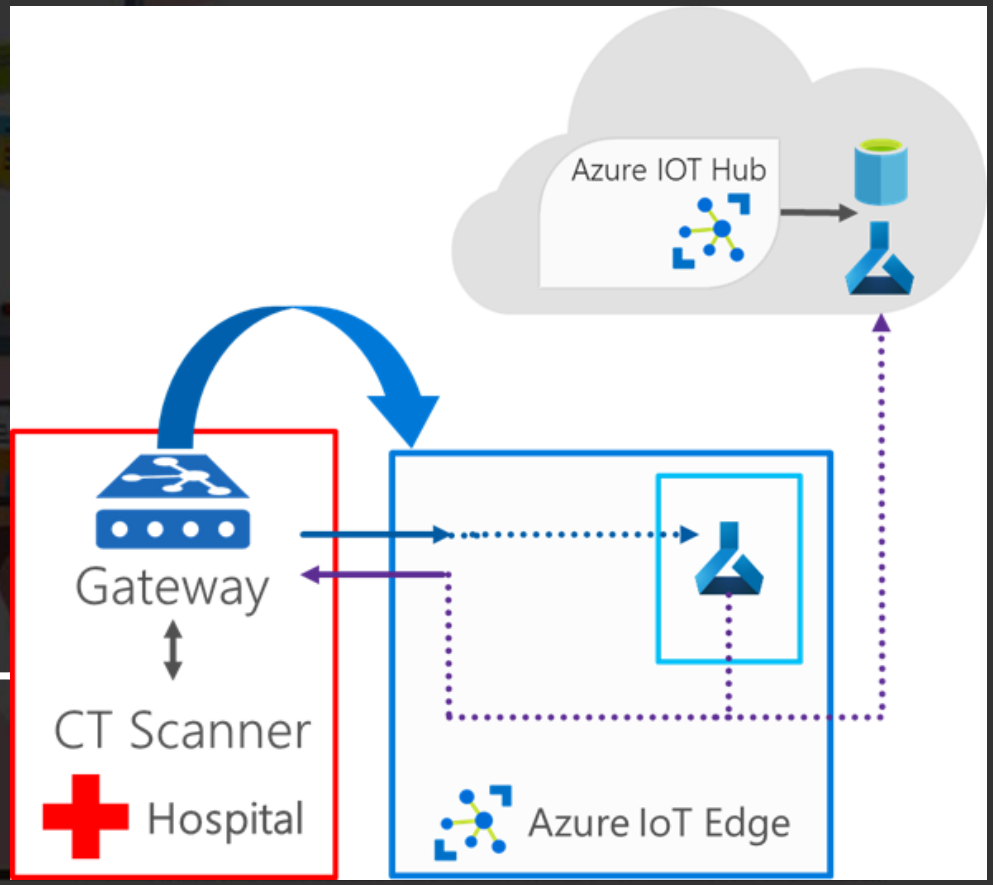
Azure Cognitive Services

Azure Cognitive Services on the Edge
https://azure.microsoft.com/en-us/blog/bringing-ai-to-the-edge/

Custom Translation capability of Text Translator
https://azure.microsoft.com/en-au/updates/custom-translation-capability-of-text-translator-is-now-available/

Public Preview – Container Support for Language Understanding Cognitive Service
https://azure.microsoft.com/en-au/updates/container-support-for-language-understanding-is-in-preview/

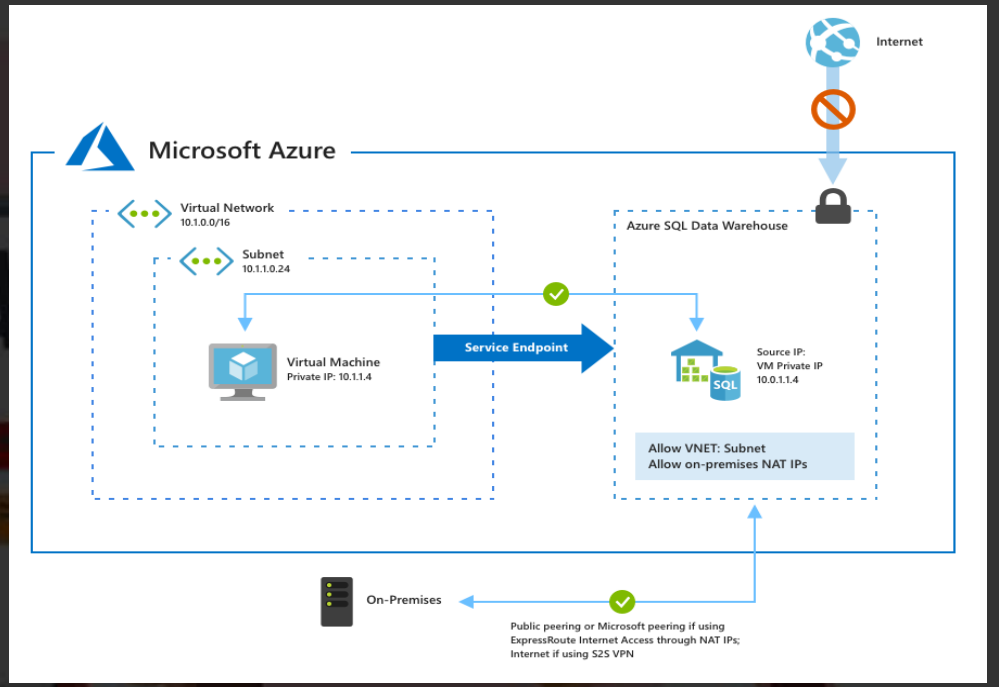
Public Preview -Microsoft previews neural network text-to-speech
https://azure.microsoft.com/en-us/blog/microsoft-previews-neural-network-text-to-speech/



Storage & Databases

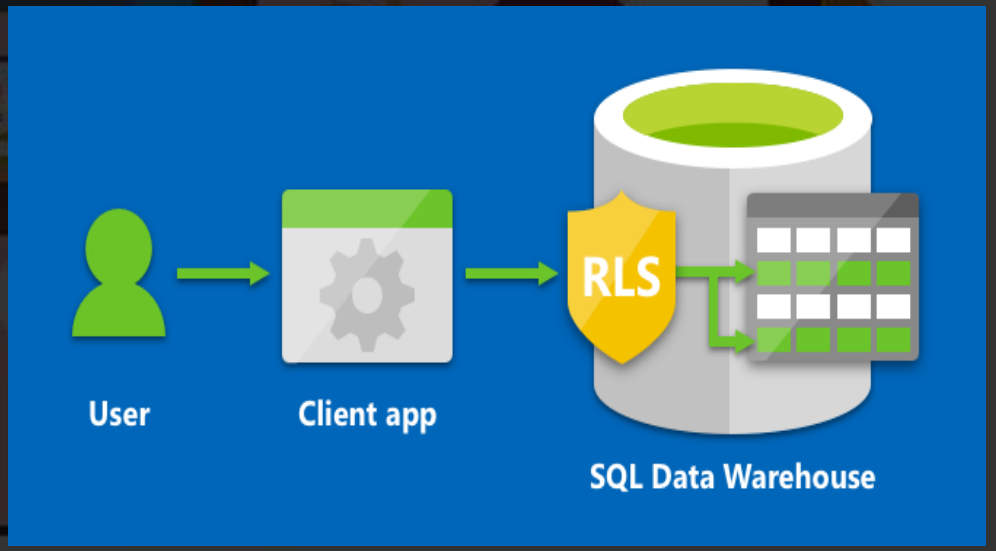
GA of VNet support for Azure SQL DW

https://azure.microsoft.com/en-us/blog/general-availability-of-vnet-service-endpoints-for-azure-sql-data-warehouse/

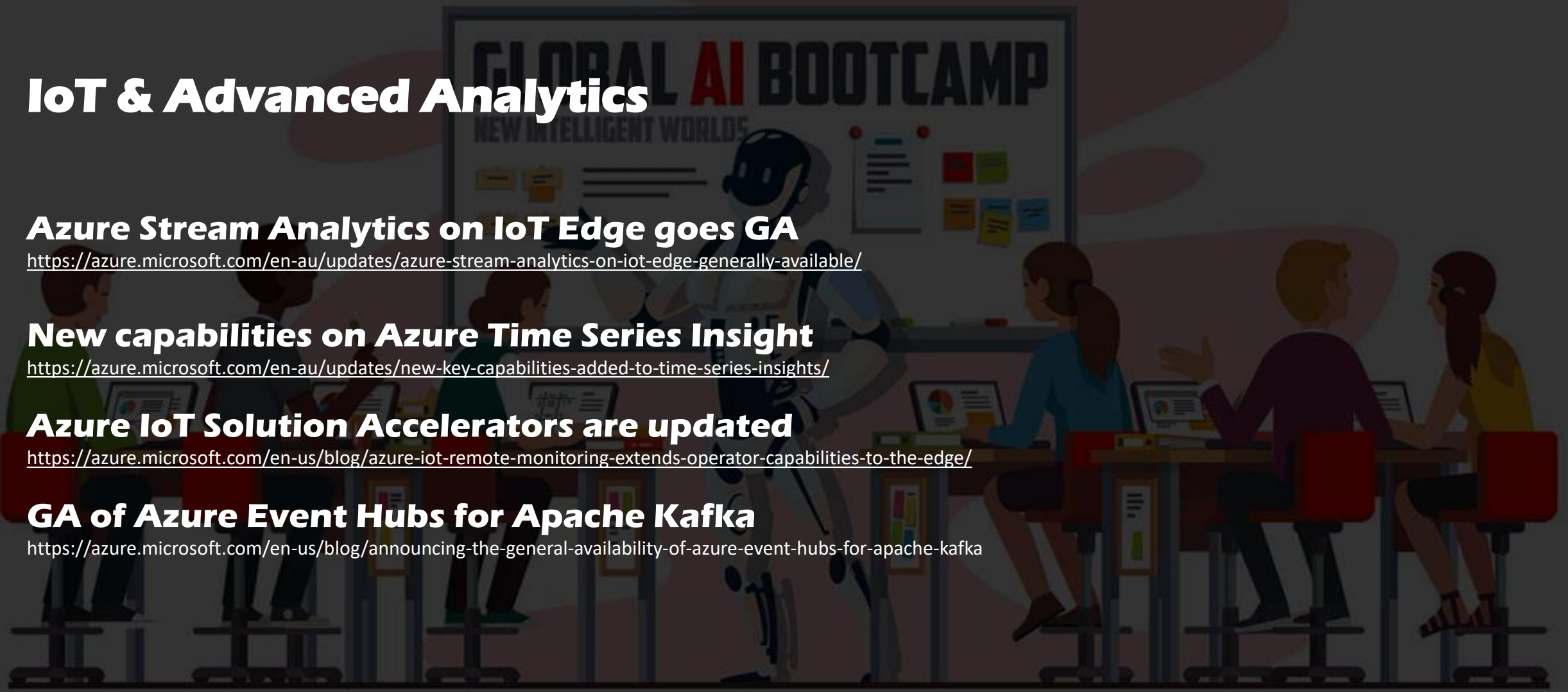


GA of Row-Level Security support for Azure SQL DW

https://azure.microsoft.com/en-us/blog/row-level-security-is-now-supported-for-azure-sql-data-warehouse/



IoT & Advanced Analytics



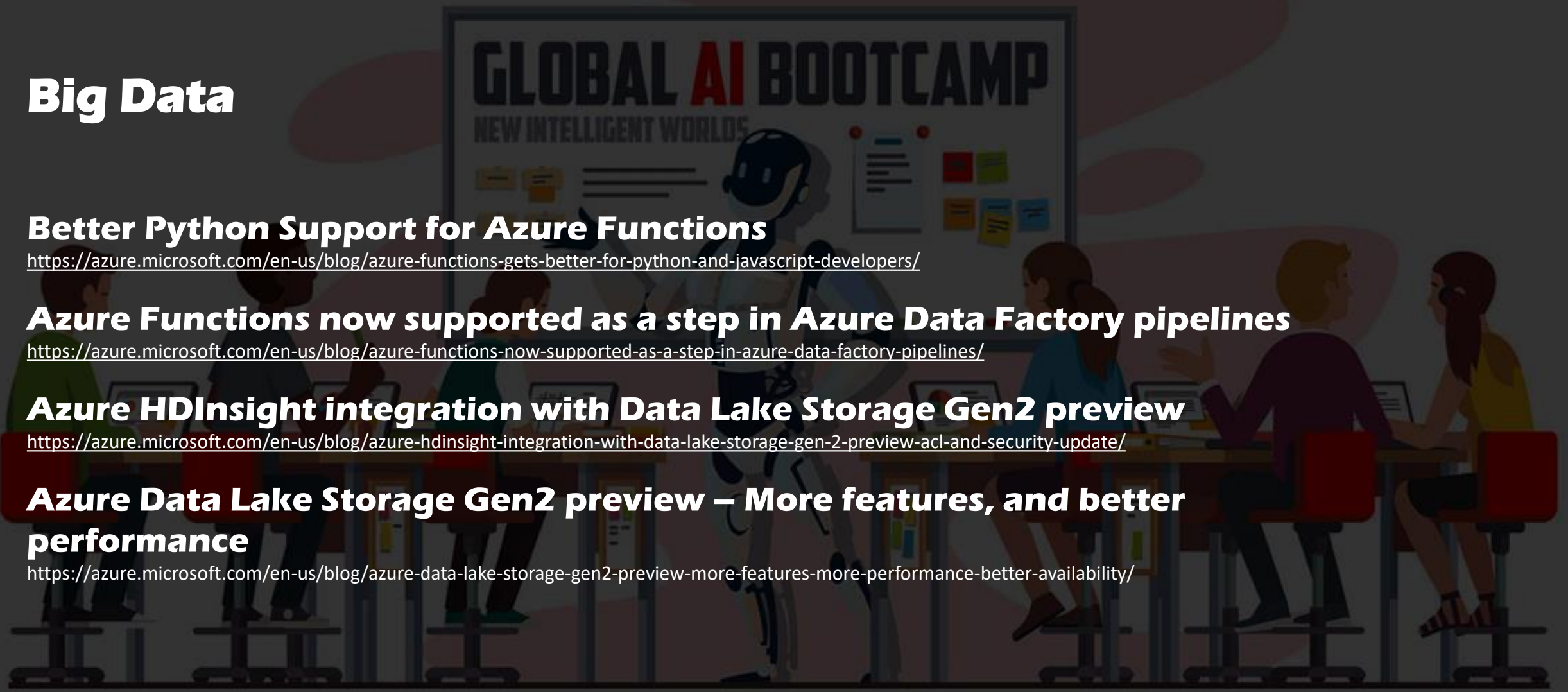
Azure Stream Analytics on IoT Edge goes GA
https://azure.microsoft.com/en-au/updates/azure-stream-analytics-on-iot-edge-generally-available/

New capabilities on Azure Time Series Insight
https://azure.microsoft.com/en-au/updates/new-key-capabilities-added-to-time-series-insights/

Azure IoT Solution Accelerators are updated
https://azure.microsoft.com/en-us/blog/azure-iot-remote-monitoring-extends-operator-capabilities-to-the-edge/

GA of Azure Event Hubs for Apache Kafka
https://azure.microsoft.com/en-us/blog/announcing-the-general-availability-of-azure-event-hubs-for-apache-kafka

Big Data



Better Python Support for Azure Functions
https://azure.microsoft.com/en-us/blog/azure-functions-gets-better-for-python-and-javascript-developers/

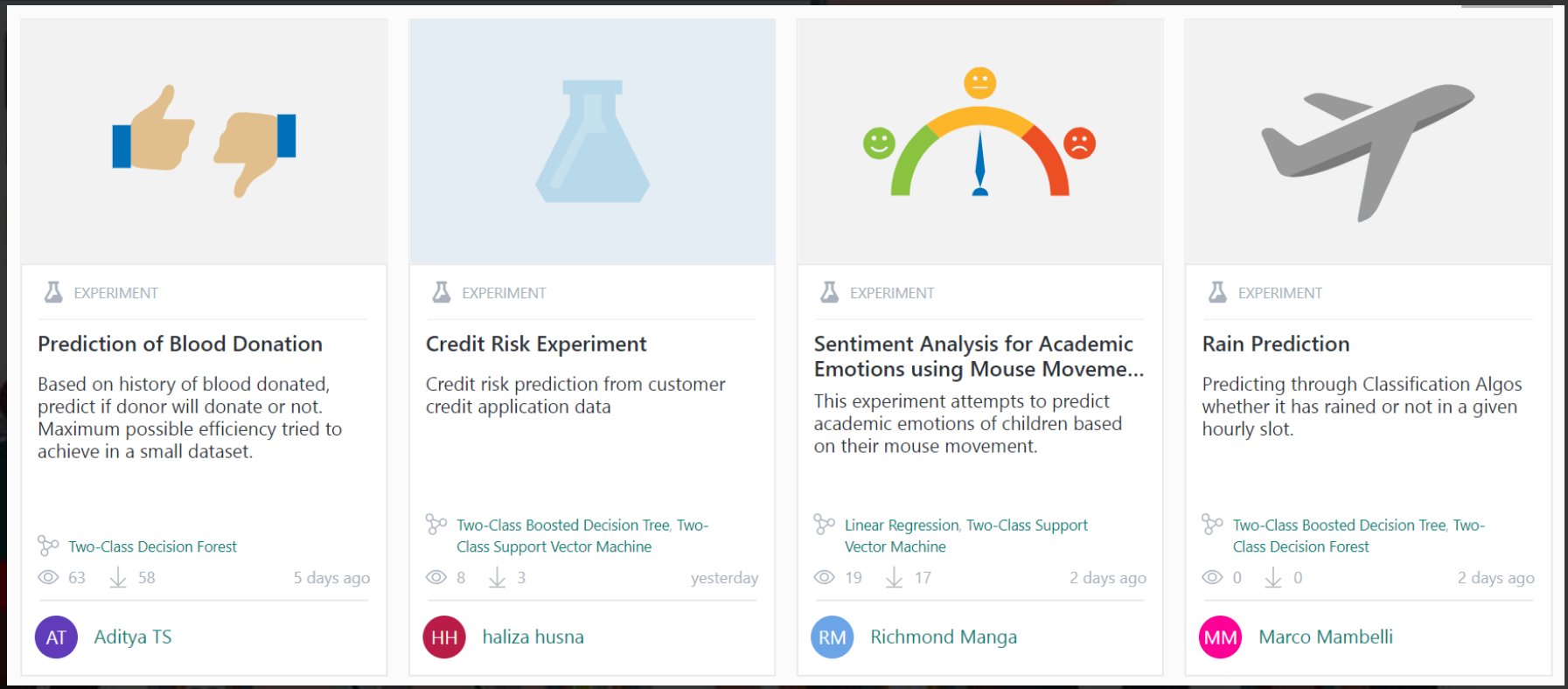
Azure Functions now supported as a step in Azure Data Factory pipelines
https://azure.microsoft.com/en-us/blog/azure-functions-now-supported-as-a-step-in-azure-data-factory-pipelines/

Azure HDInsight integration with Data Lake Storage Gen2 preview
https://azure.microsoft.com/en-us/blog/azure-hdinsight-integration-with-data-lake-storage-gen-2-preview-acl-and-security-update/

Azure Data Lake Storage Gen2 preview – More features, and better performance
https://azure.microsoft.com/en-us/blog/azure-data-lake-storage-gen2-preview-more-features-more-performance-better-availability/

Azure AI Gallery

https://gallery.azure.ai



http://azureaibootcamp.me

#GlobalAIBootcamp

Additional Learning Resources

Microsoft Learn
https://docs.microsoft.com/en-us/learn/

AI School
https://aischool.microsoft.com/

IoT School
https://iotschool.microsoft.com/

FREE eBook – Developer's Guide to Building AI Applications
https://info.microsoft.com/ww-landing-ai-developers-bot-ebook.html

Questions?