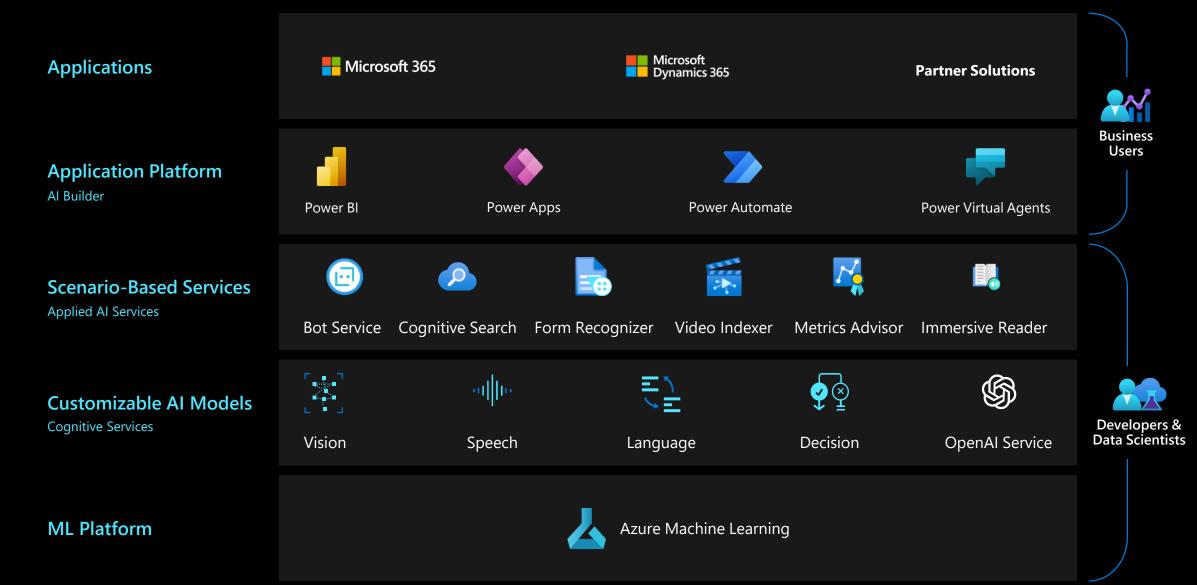
# Azure Al MLOps – DevOps for ML

Sammy Deprez

## Microsoft Al portfolio



## Machine Learning on Azure

### Domain specific pretrained models

To simplify solution development











Vision

Speech

Language

Web search

Decision

#### Familiar data science tools

To simplify model development









**Command line** Jupyter

### **Popular frameworks**

To build advanced deep learning solutions







TensorFlow



Scikit-Learn

**ONNX** 

### **Productive services**

To empower data science and development teams



**Azure Machine Learning** 



Azure Databricks



Machine Learning VMs

#### Powerful infrastructure

To accelerate deep learning



CPU



**GPU** 

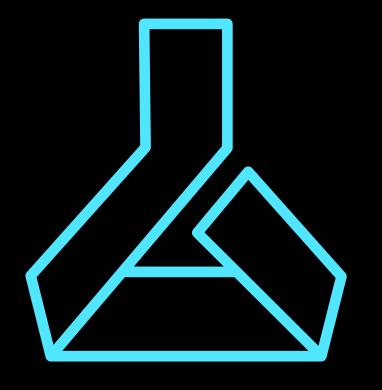


**FPGA** 



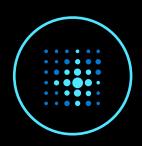
From the Intelligent Cloud to the Intelligent Edge





# Azure Machine Learning

# Azure Machine Learning (1 of 2)



For all skill levels

Automated ML + drag & drop + code first



Open

Any tool + any framework



**Industry leading MLOps** 

Integrated with Azure DevOps

# Azure Machine Learning (2 of 2)



For all skill levels

Automated ML + drag & drop + code first



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**Industry leading MLOps** 

Integrated with Azure DevOps

# DevOps

# MLOps



Code reproducibility



Code testing



App deployment



Model reproducibility



Model validation



Model deployment



Model retraining

# MLOps with Azure Machine Learning (1 of 8)

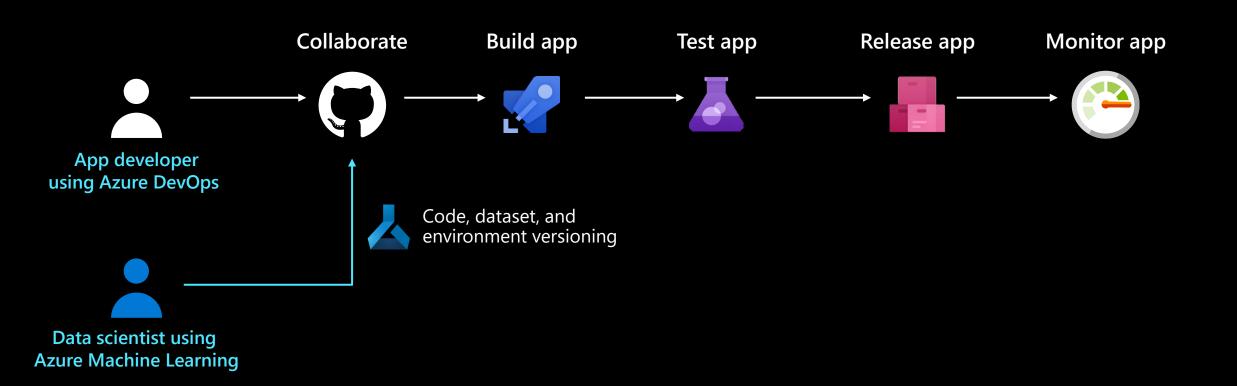








# MLOps with Azure Machine Learning (2 of 8)



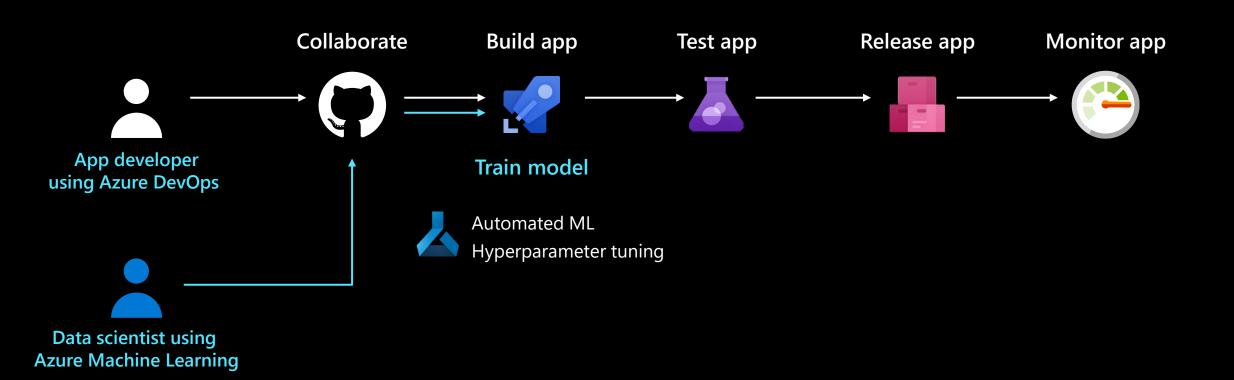








# MLOps with Azure Machine Learning (3 of 8)



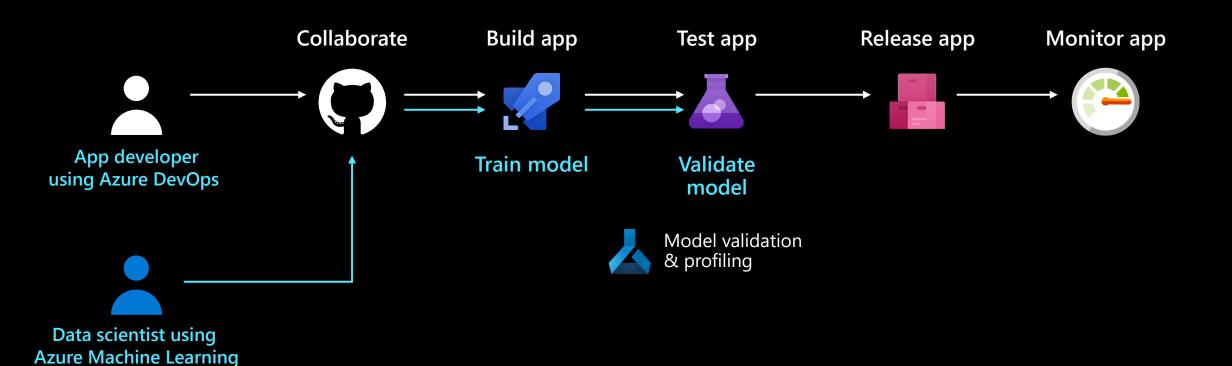








# MLOps with Azure Machine Learning (4 of 8)



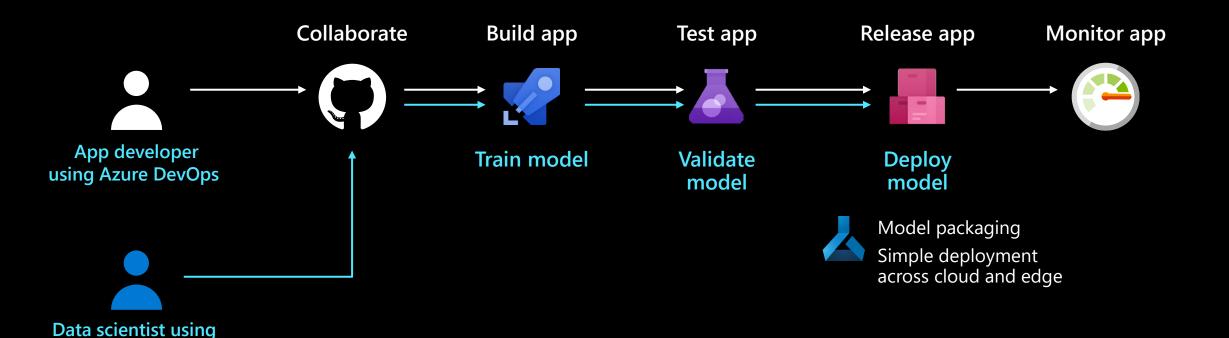








# MLOps with Azure Machine Learning (5 of 8)





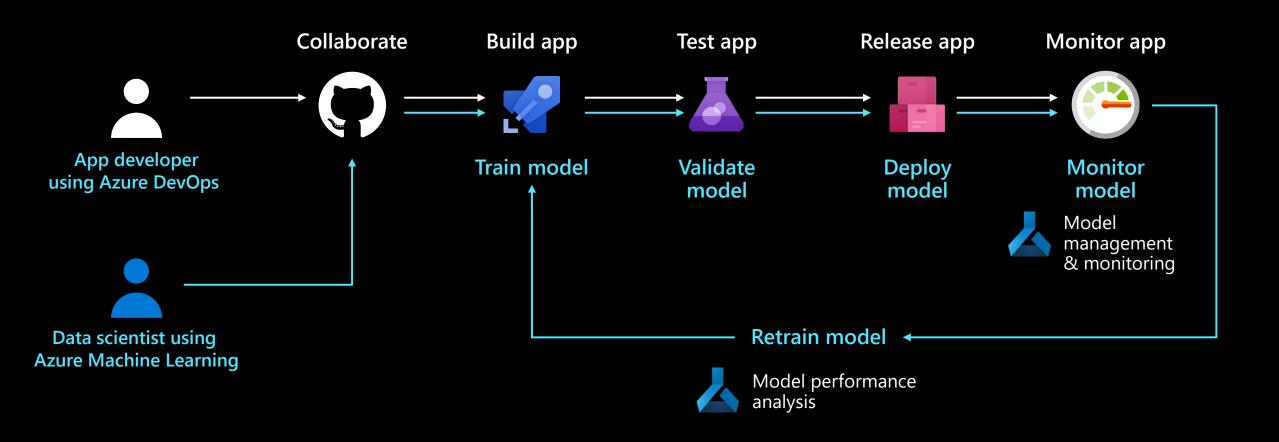
**Azure Machine Learning** 







# MLOps with Azure Machine Learning (6 of 8)



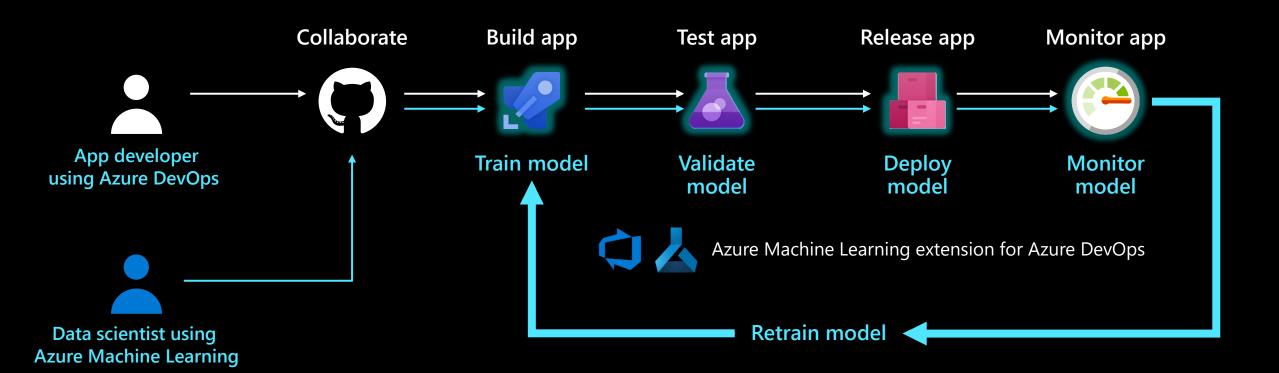








# MLOps with Azure Machine Learning (7 of 8)



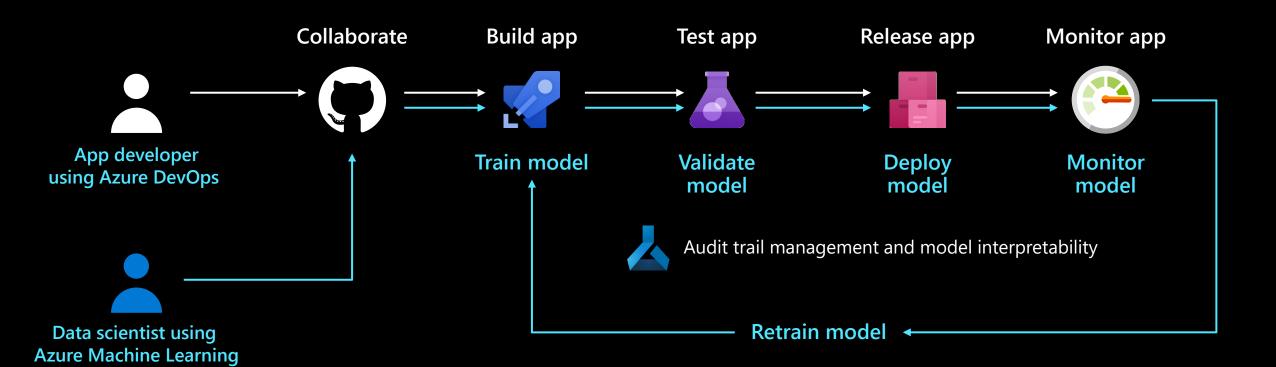








# MLOps with Azure Machine Learning (8 of 8)

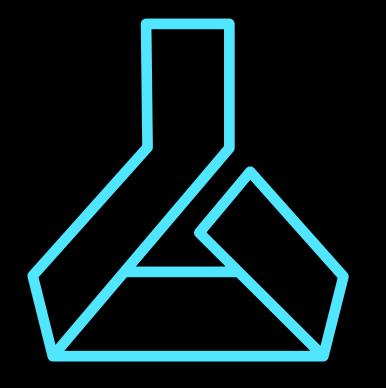












# Let's see some code

### Thank You!

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MLOps Solution Accelerator: https://github.com/Azure/mlops-v2/