

Tensorflow on Azure

Luiz Fernando Braz - luiz.braz@microsoft.com



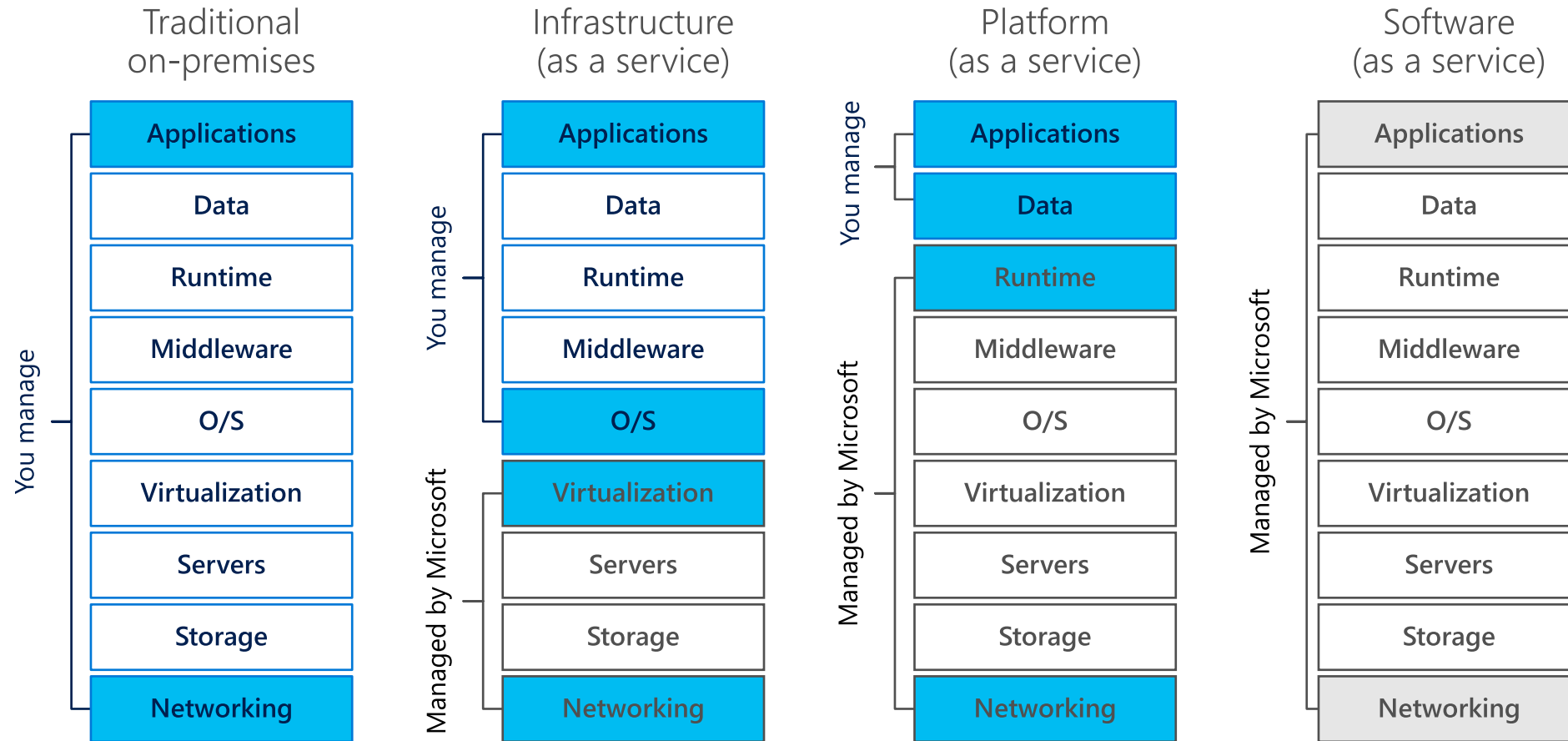
<https://www.linkedin.com/in/lfbraz/>



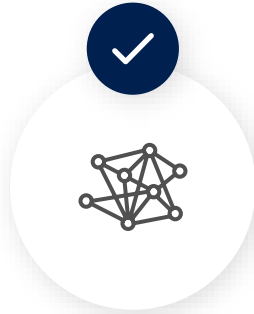
<https://github.com/lfbraz>

Microsoft Azure

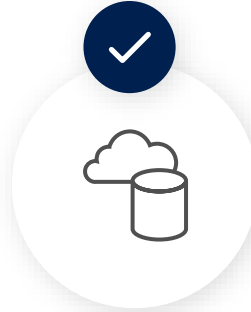
Infrastructure Overview



Azure infrastructure for your needs



Infrastructure
for every workload



Hybrid
by design



Built-in security
and management

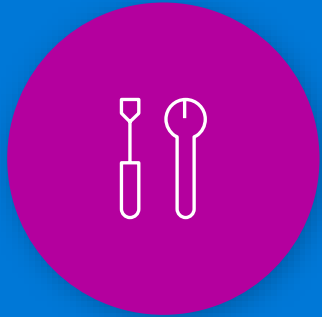


54

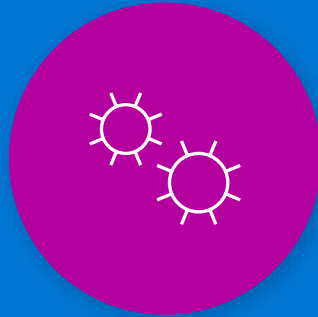
Azure regions



Azure: Productive



Integrated tooling
for developers



100+ cloud
services



Unified management
for IT admins

Use the open source tools you like

DevOps

Nagios®



Management



Applications



Pivotal



App frameworks & tools



nodeJS



eclipse



Databases & middleware



cloudera



Couchbase



SAP S/4 HANA

Infrastructure

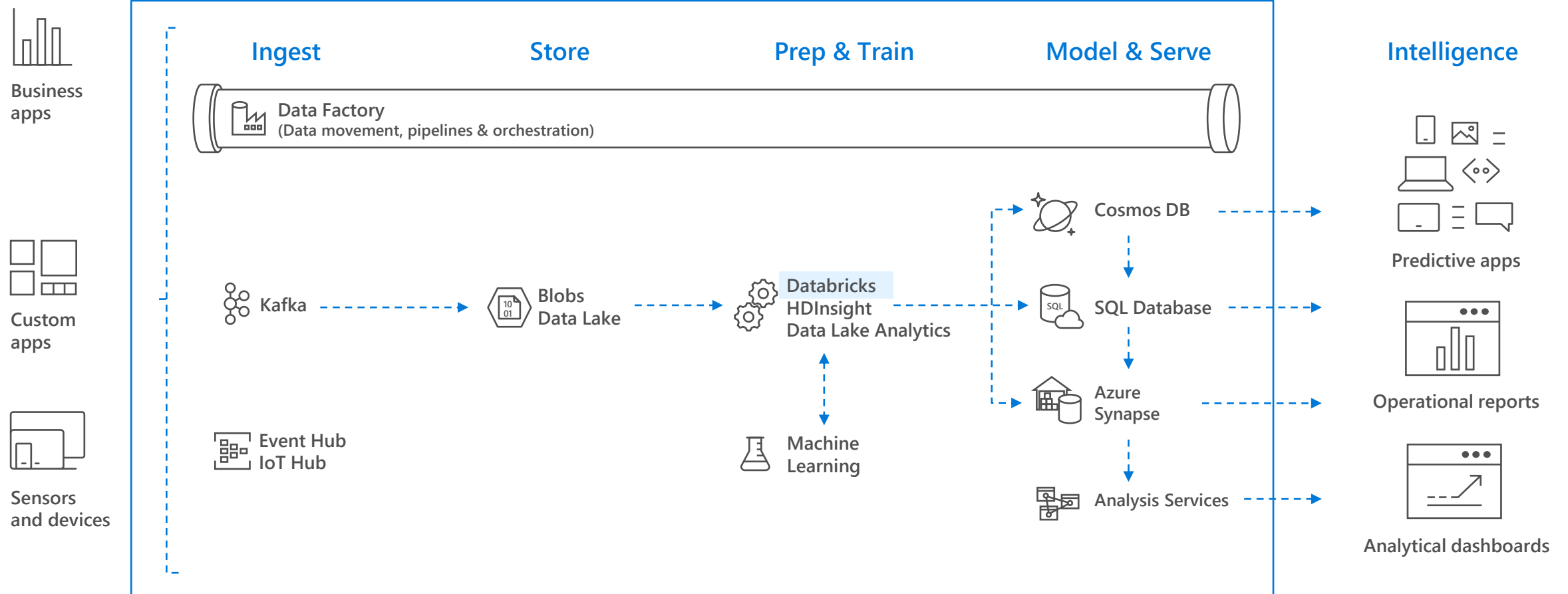


ORACLE
LINUX



Big Data & Advanced Analytics in Azure

BIG DATA & ADVANCED ANALYTICS AT A GLANCE



Azure Databricks

Powered by Apache Spark

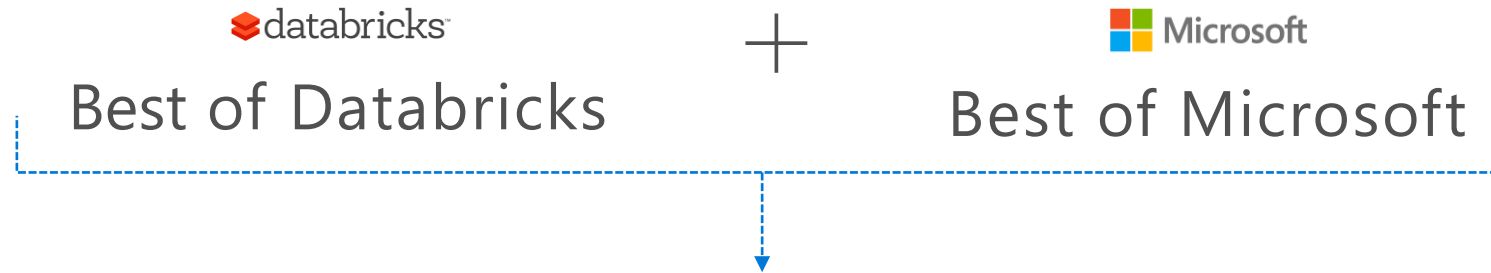
Why Spark?




- Open-source data processing engine built around **speed, ease of use, and sophisticated analytics**
- In memory engine that is up to **100 times faster than Hadoop**
- **Largest open-source data project** with 1000+ contributors
- **Highly extensible** with support for Scala, Java and Python alongside Spark SQL, GraphX, Streaming and Machine Learning Library (MLlib)

What is Azure Databricks?

A fast, easy and collaborative Apache® Spark™ based analytics platform optimized for Azure



 Designed in collaboration with the founders of Apache Spark



One-click set up; streamlined workflows



Interactive workspace that enables collaboration between data scientists, data engineers, and business analysts.

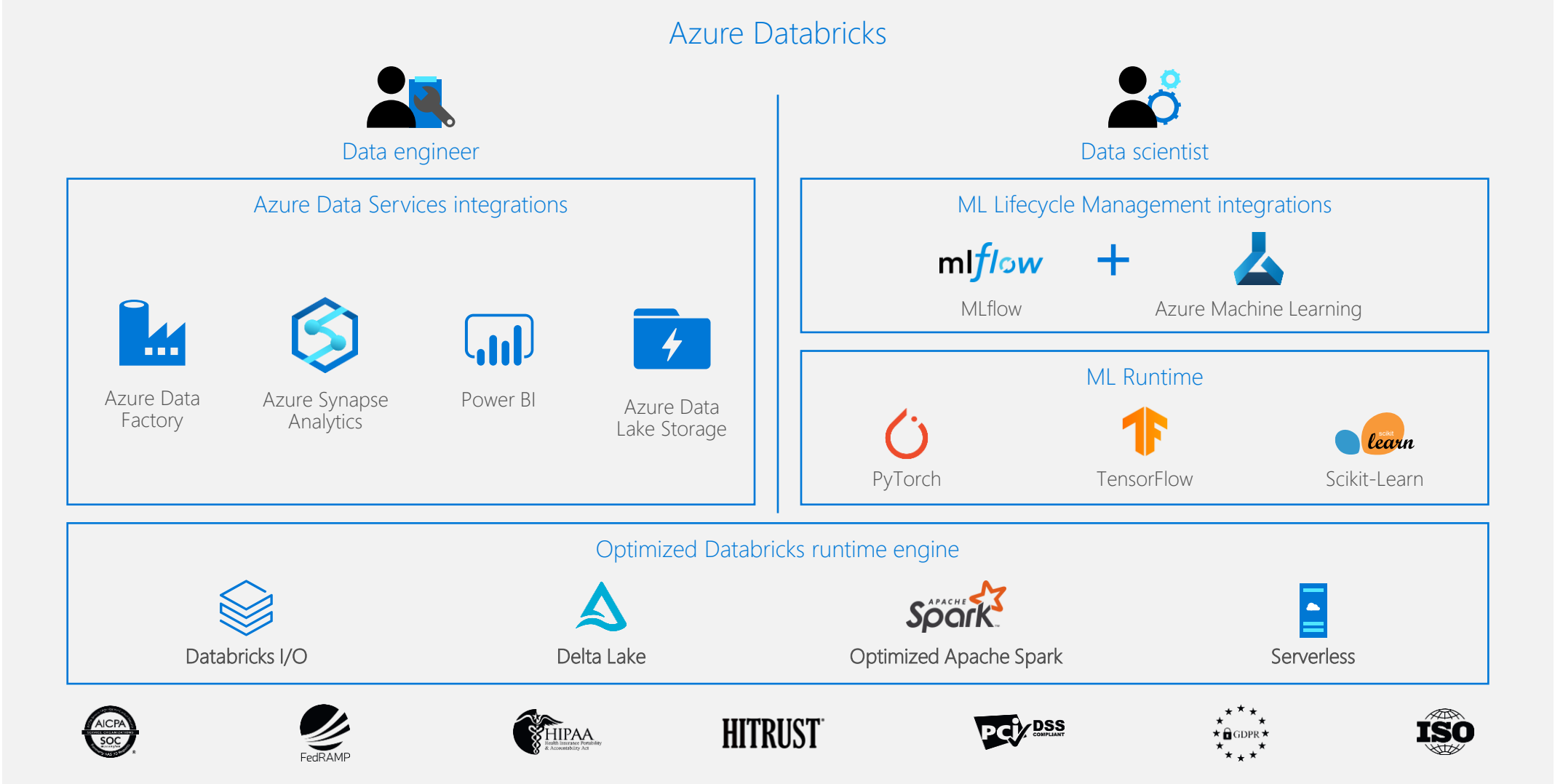


Native integration with Azure services (Power BI, SQL DW, Cosmos DB, Blob Storage)



Enterprise-grade Azure security (Active Directory integration, compliance, enterprise-grade SLAs)

Azure Databricks



Optimized Databricks runtime engine


Databricks I/O


Delta Lake


Optimized Apache Spark

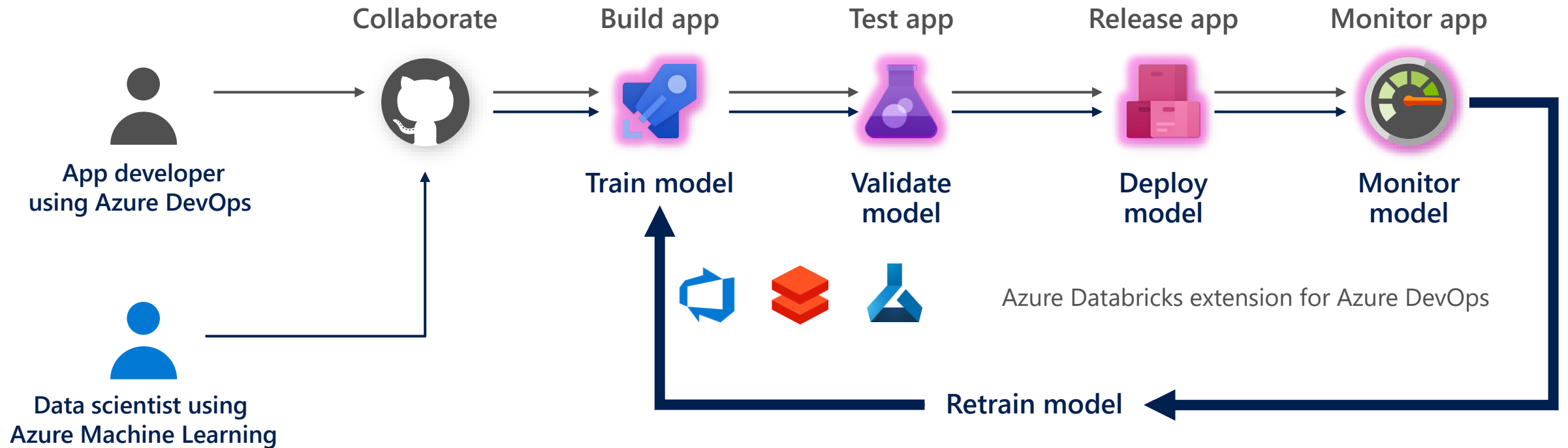

Serverless



Azure Databricks and Azure ML are better together



MLOps with Azure Machine Learning + Databricks



✓ Model reproducibility

✓ Model validation

✓ Model deployment

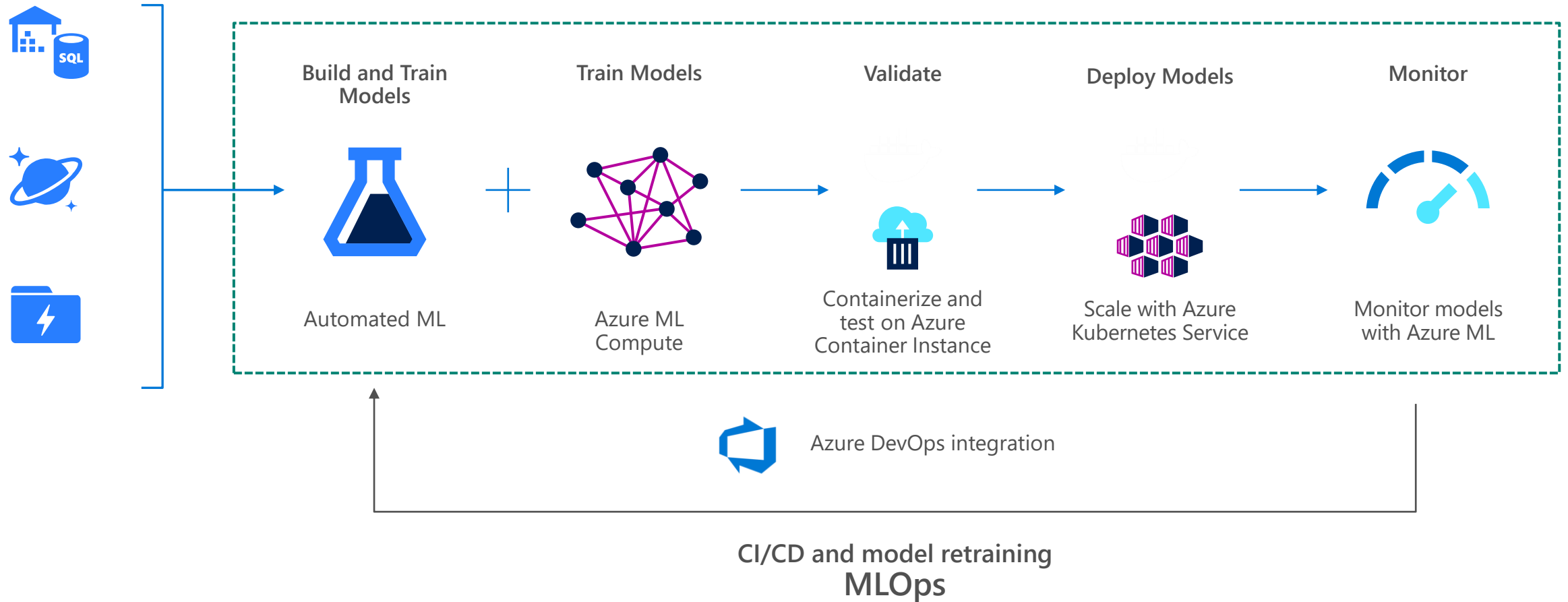
✓ Model retraining

Demo

Tensorflow on Azure Databricks

Deploy machine learning models at scale

Azure Machine Learning service





Thank you !! :)