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*A Women Owned/Women Led Company*

# Spyglass Presents:
# AI / Machine Learning in 45 days (IQi45)

**Microsoft Solutions Partner**
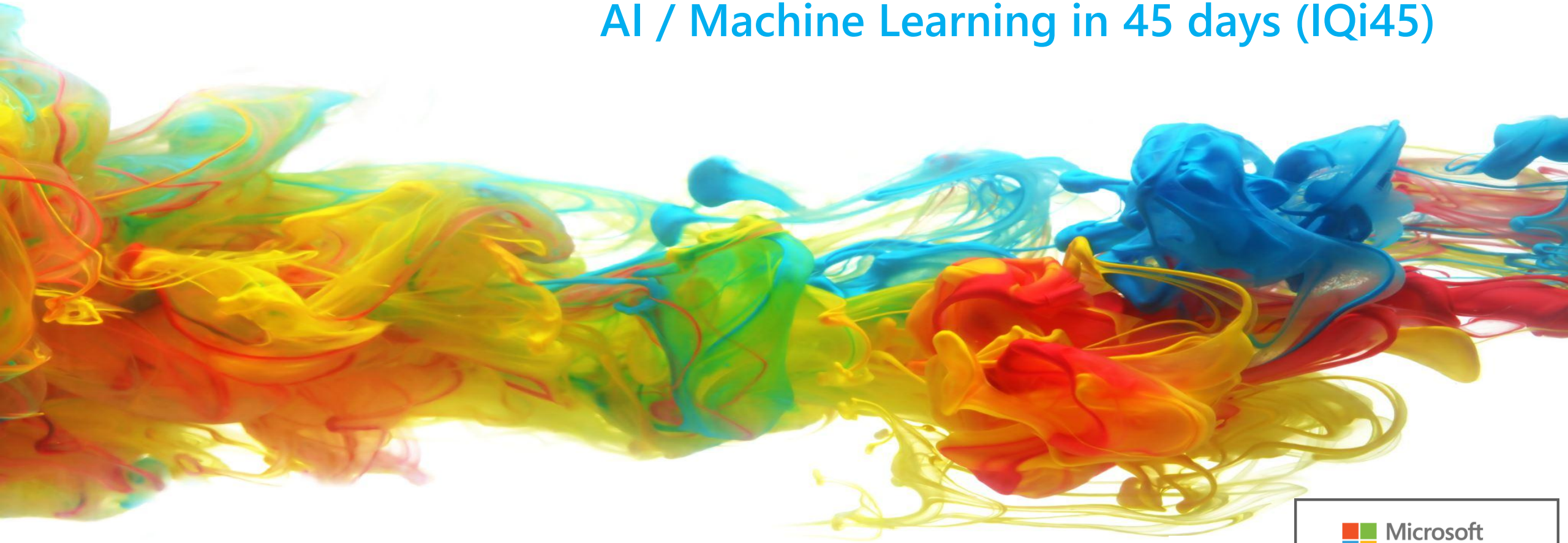
Infrastructure Azure
Data & AI Azure
Digital & App Innovation Azure
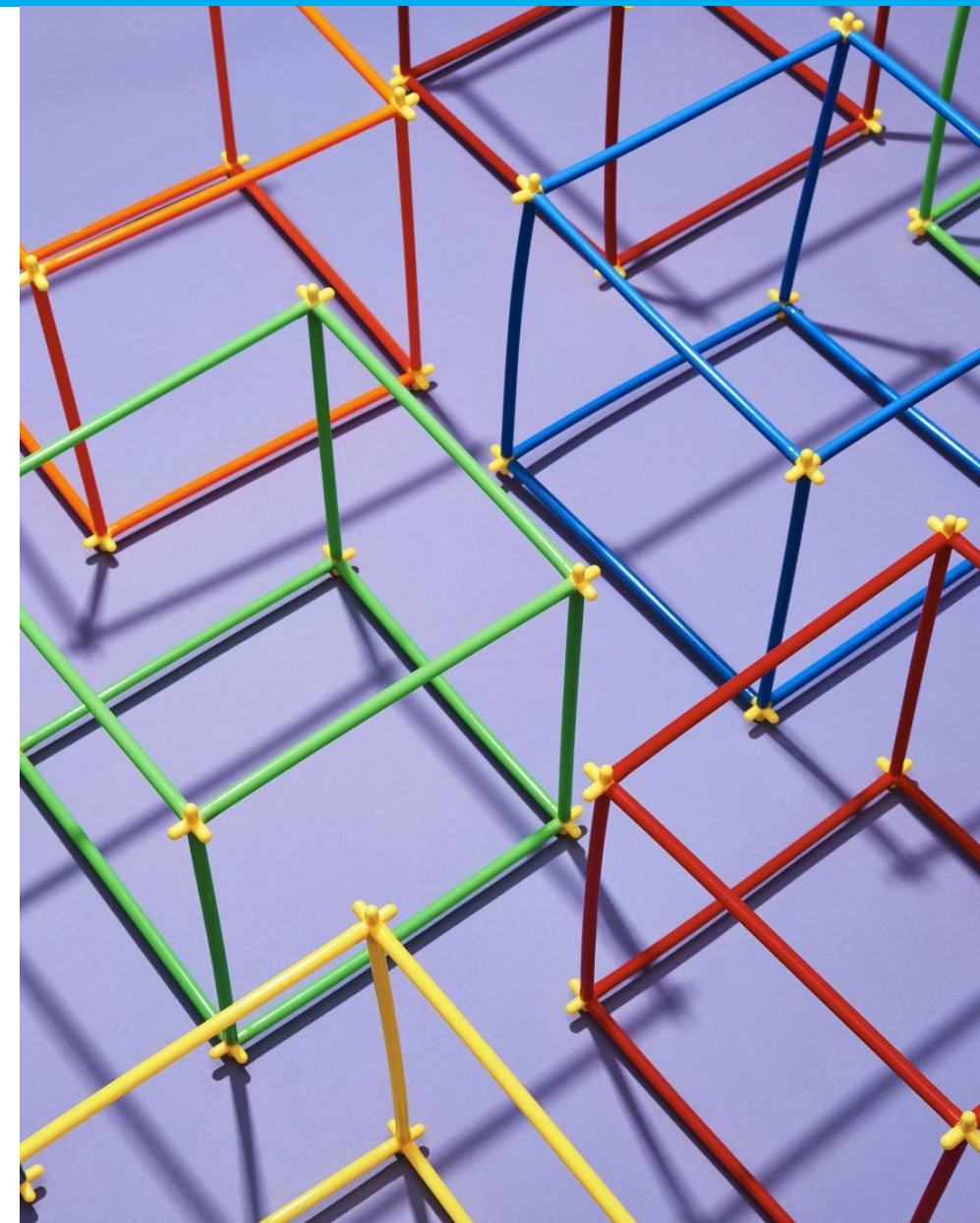Modern Work
Security

# Spyglass's AI / Machine Learning in 45 days (IQi45)



- **What is IQi45?**
  - IQi45 is designed to help you create a Machine Learning solution in Azure quickly and efficiently
  - With a prebuilt Azure Blueprint for a secure Azure ML Deployment, deploying a customizable new platform is quick and easy
  - With dozens of prebuilt templates provided with the Blueprint, code bases, tool kit, and other assets to leverage, your platform will be up and running before you know it

- **IQi30 will allow your business to:**
  - Integrate multiple data sources to create an intelligent AI and ML solution that supports your business strategies
  - Quickly build and deploy intelligent apps, backed by Azure's prebuilt AI capabilities
  - Or leverage autoML to train dozens of custom models fit to your domain
  - Leverage the technology stack and data engine of your choice

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# Spyglass IQi45 Approach

1. **Strategy & Plan: Analytics and Design Workshop**
   - Identify the who, what, when, and why including inventory review
   - Envision the role of a modern ML and AI platform
   - Identification of industry and customer use-cases
   - Analyze the customer data estate, infrastructure, applications, workloads, and data scenarios to scope the transition requirement

2. **Ready:** Implement ML Landing Zone
   - Design and deploy the Landing Zone for Machine Learning Platform modernization
   - Data & AI Architectural Workshop
   - ML & AI Workshops 1 & 2: Azure AI and ML Overview

3. **Innovate:** Get your solution into the hands of users, get feedback, and decide what to change or add
   - Feature selection and engineering
   - Model training and review
   - Sketch and envision future use-cases
   - ML Workshops 3 & 4: Working with Azure ML

4. **Accelerate**: Model the data (decide how the data you need and create will be organized, accessed, and stored) and sketch out the app or report screens.
   - Feedback
   - Roadmap to operation
   - ML Workshop 5: Implementing a Model Deployment

3

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# IQi45 Toolkit

- Security First Azure Blueprint
- ML & AI Use-Case Accelerators
- Solution Design Template
- Planning and Delivery Checklists
- Documented Development Practices
- Documented Architecture Design Patterns
- Capacity Assessment and Planning Tools
- Security and Compliance Checklists
- Performance Management Checklist
- Experienced Deployment Engineers
- Solution Delivery Template

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# Spyglass IQi45 Benefits

- Spyglass IQi45 provides the following benefits:

  - **Time to Market** – faster and more accurate insights and predictions 2-10x faster

  - **Security**– Most secure, compliant and scalable platform with best-in-class compliance out of the box

  - **Flexibility** – Works with your current data sources to get the most from existing investments and grows with your business

  - **Repeatability** – Spyglass's proven methodology and toolkit provides repeatable process and accelerators to speed the development of your solution

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# Next Steps

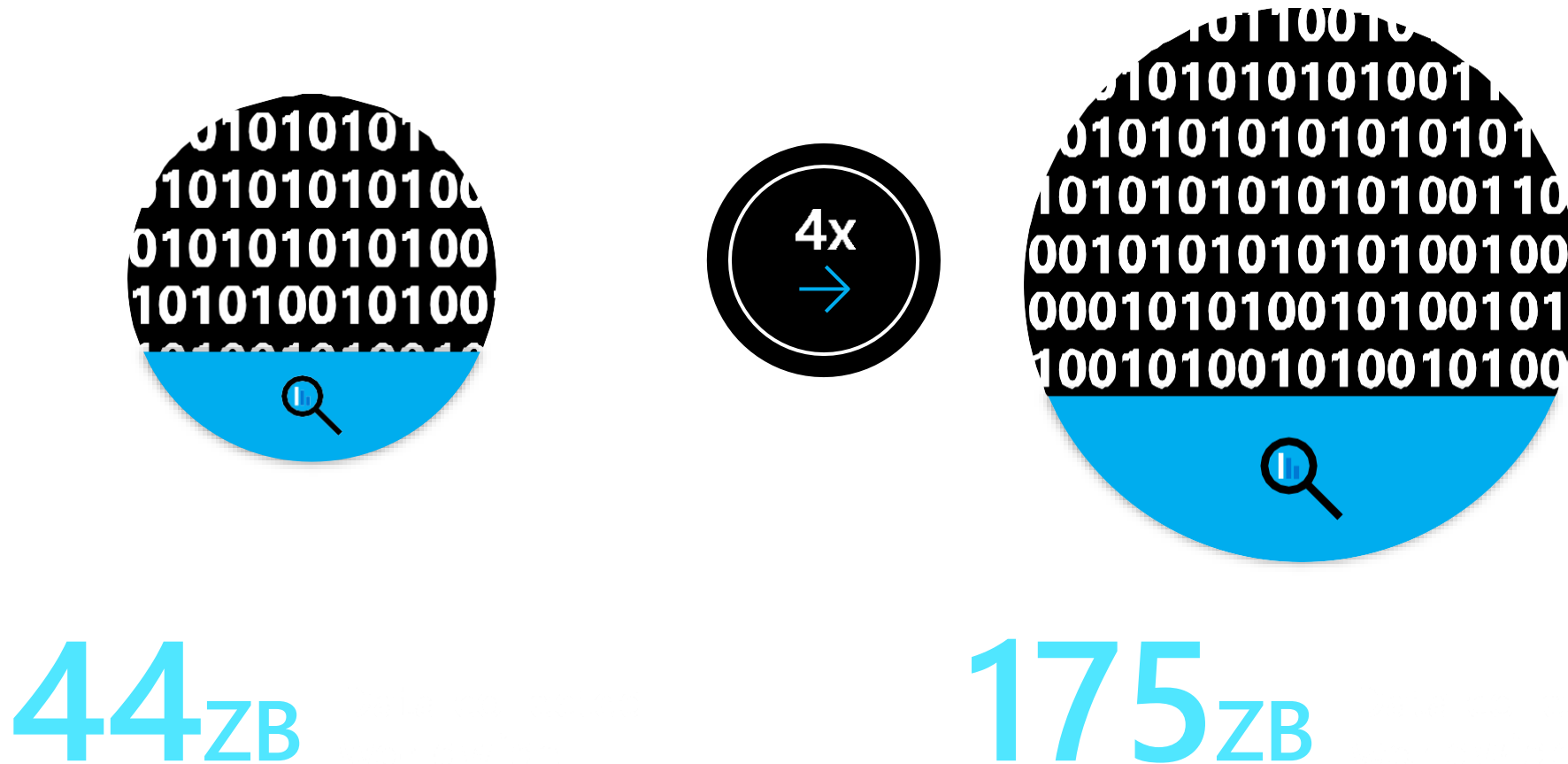Scoping Session to understand client's data landscape
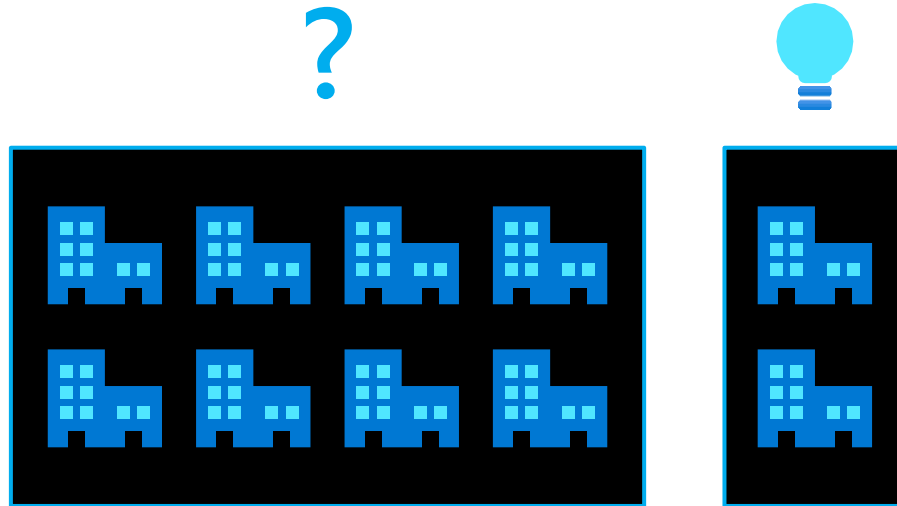
Process paperwork

Start building platform!

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# Thank You

# While data grows 400%, less than 30% gets analyzed



44ZB

175ZB

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# Analytics & AI is the #1 investment for business leaders, however they struggle to maximize ROI



**?**

**80%**

**55%**

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# More analytics solutions lead to more silos

## Data

Structured
Unstructure
d Streaming
Big data
Cloud
On-premises
IoT/edge

## Technologies

Map Reduce
Open source projects
Data mart
Data warehouse
Data lake
Spreadsheets
RDMS
Data visualization
tools
ML models
AI services

## Skills

SQL
Pytho
n Java
R
Industry Schemas
Data modeling
Data cleaning
Data integrations

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# paradox

## Each new technology creates another siloed operation

Big data

Data integration
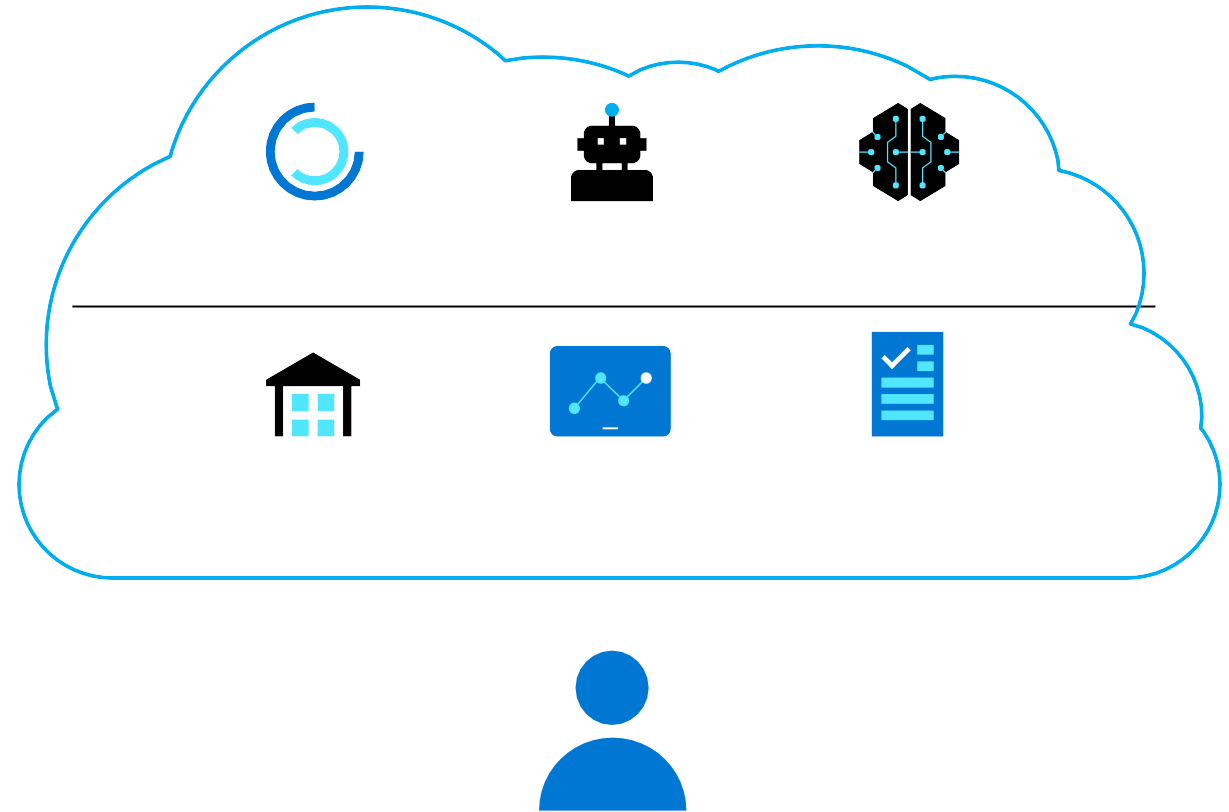
Machine learning
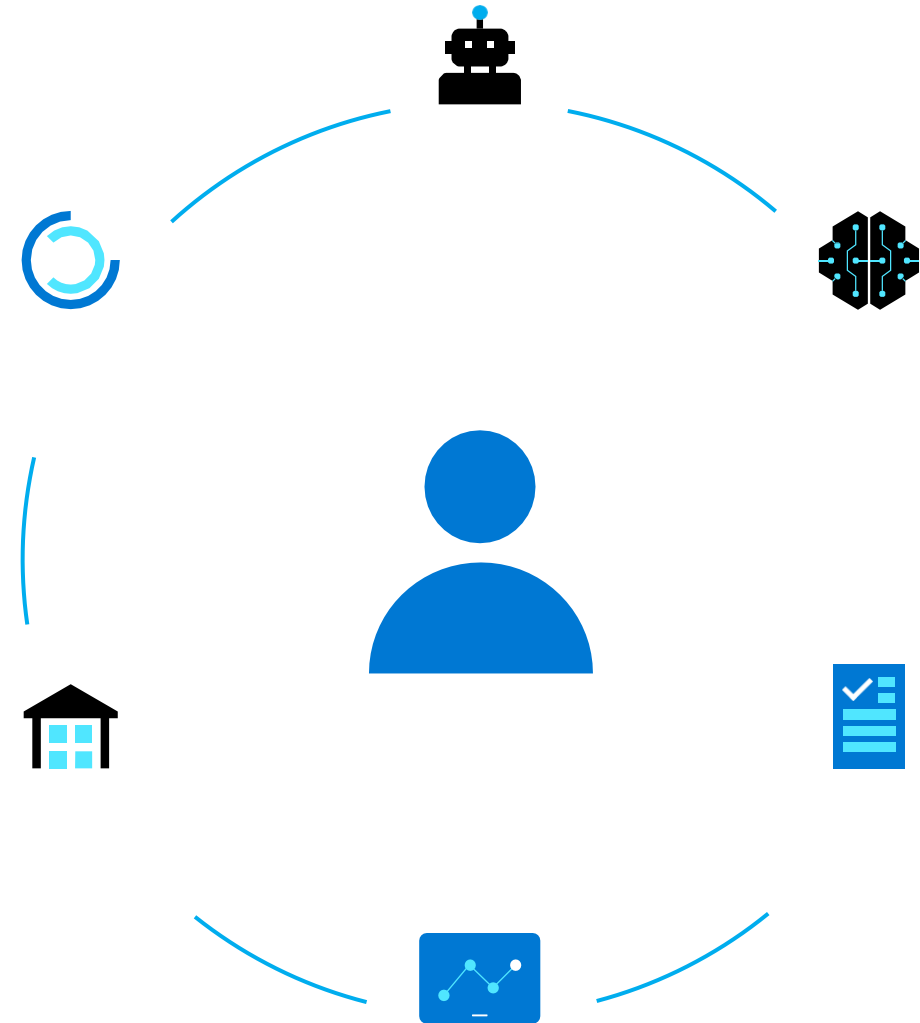
Business

intelligence

Data

governance

Security

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# Data professionals shouldn't have to continually learn new skills to deliver insights

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# Analytics should seamlessly be part of the way users work—rather than a factor for creating more siloes

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# Azure ML delivers the full continuum of data science tools in a single service

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# Azure Machine Learning

**Limitless ML services with unmatched time to insight**

# Machine learning

## Democratize predictive power

Synapse makes predictive analytics accessible to all

Notebooks provides a code authoring experience for complex predictive models

Automatic ML graphical interface provides a no-code experience for creating ML models

Native integration with Azure Cognitive Search provides access to pre-built models

**All Code**
Notebook IDE
PySpark/Scala

**Low/no-Code**
Classification
Regression
Time-series

**Pre-built models**
Anomaly Detector
Sentiment Analysis

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# Open ecosystem with support for industry standards

## Data + Languages

Languages such as SQL, PySpark, Scala and C# in support of data science and data warehouse workloads

The data lake supports and unlimited set of file formats including Parquet, ORC and Json as well as audio, image, and video formats

**Language**

PySpark    Scala    C#    SQL
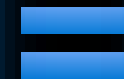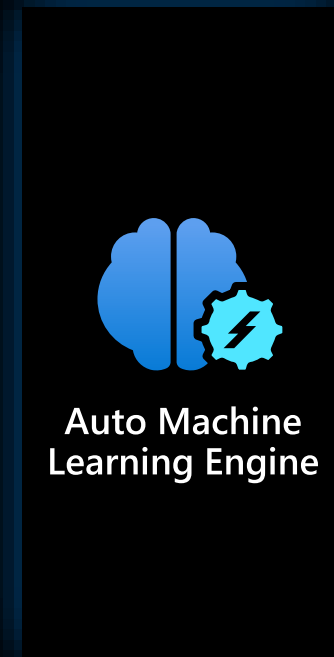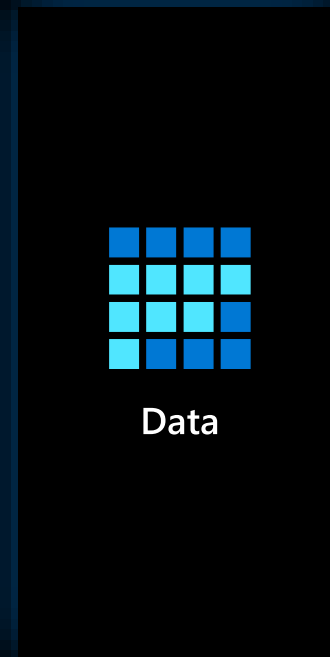
**Data**

Parquet    .ORC    < ʼ >    {JSON}

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# Automatic machine learning

## All you need is data

Fully automated feature exploration

Data **+** Auto Machine Learning Engine **=** Predictive Model

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# Azure for Manufacturing

## Intelligent Manufacturing
### *Manufacturing a resilient and sustainable future*

| Transform your workforce | Engage customers in new ways | Build more agile factories / production | Create more resilient supply chains | Unlock innovation and deliver new services |
|---|---|---|---|---|
|  |  |  |  |  |
| Combine productivity apps, intelligent cloud services and security to transform the way you work | Deliver relevant customer experiences across marketing, sales and service channels | Create the safe, secure and agile factory of the future today with IT, OT, and industrial IoT | Improve service resilience and profitability through intelligent supply chain planning and execution | Engineer new business value with sustainable products and digital services |

Navigate the now  |  Plan the comeback  |  Shape the new normal

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# Azure for Retail

| **Know your customers** | Deliver intelligent supply chain | Reimagine retail |
|---|---|---|

## Overview

Azure combines your on-premises and cloud systems tools to create personalized and interactive experiences that seamlessly facilitate deeper engagement between shoppers and your brand.

## Potential outcomes

› Deliver personalized experiences across all channels

› Optimize advertising, marketing campaigns, channels and purchase behavior with insights

## Sample target offerings

› Omni-Channel Optimization

› Personalization

› Customer Insights

› Customer Data Platform

## Customer evidence

Loblaw
COMPANIES LIMITED

Ahold
Delhaize

Wolford

Walgreens Boots Alliance

## Partner

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# Azure for Retail

| Know your customers | **Deliver intelligent supply chain** | Reimagine retail |
|---|---|---|

## Overview

Aggregate real-time information throughout the supply chain to improve demand forecasting and increase supplier collaboration.

## Potential outcomes

› Maintain **optimal inventory levels** & improve service

› Make **better forecasting decisions**

› **Reduce loss** by tracking assets throughout the logistics journey

› **Increase agility & responsiveness** across the supply chain

› **Increase the safety and security** of goods and shipments

## Sample target offerings

› Connected supply chain

› Optimize supply chain

› Predictive analytics

› Inventory tracking and management

## Customer evidence

Microsoft devices

## Partner

# Azure for Retail

| | | |
|---|---|---|
| Know your customers | Deliver intelligent supply chain | **Reimagine retail** |

## Overview

By combining the Intelligent Edge and Intelligent Cloud, you can capture data, create insights, and translate those insights into improved processes and next-generation experiences.

## Potential outcomes

- **Energy efficiency** and cost savings
- Reduce labor needs with **automation**
- **Contactless** shopping and fulfillment

- **Analytics** to help comply with social distancing
- New fulfillment nodes with **micro fulfillment centers**
- Location-based **personalized advertising**

## Sample target offerings

- Building energy and asset optimization
- Shopper and inventory analytics
- Scan and go/grab and go
- Buy online and pick up in store/curbside
- Inventory accuracy and fulfillment automation

## Customer evidence

NATUZZI  MIGROS

Kroger  MARKS & SPENCER  H&M

## Partner

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