

# Democratizing AI to empower individuals, organizations and society

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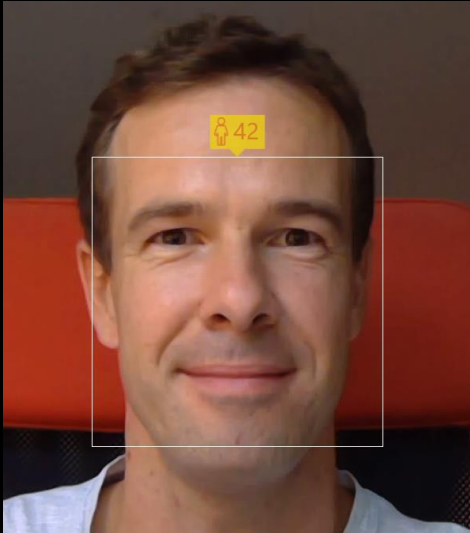


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# Marcel or ...



Labrador



Man, 42 years



Scott Coffey

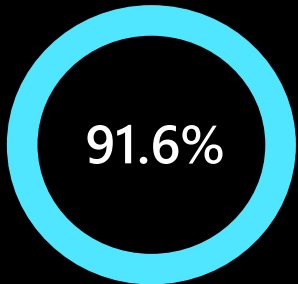


Brown Hair

Hair color	
Brown (99%)	Black (74%)
Facial hair	
Moustache	
Beard	
Sideburns	
Glasses	
None	
Makeup	
None	
Accessories	
None	

# Intelligence from data is key to digital value creation

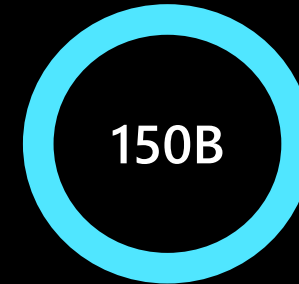
91.6% of executives report that the pace of investment in Big Data and AI is increasing, while 87.8% report a greater urgency to invest



There will be more than 175 zettabytes of data by 2025, with 30% consumed in real-time



More than 150B devices will be connected across the globe by 2025, most of which will be creating data in real time



Investment in Data would reap an annual revenue increase of \$5.2 million, with organizations seeing a potential 547 percent return

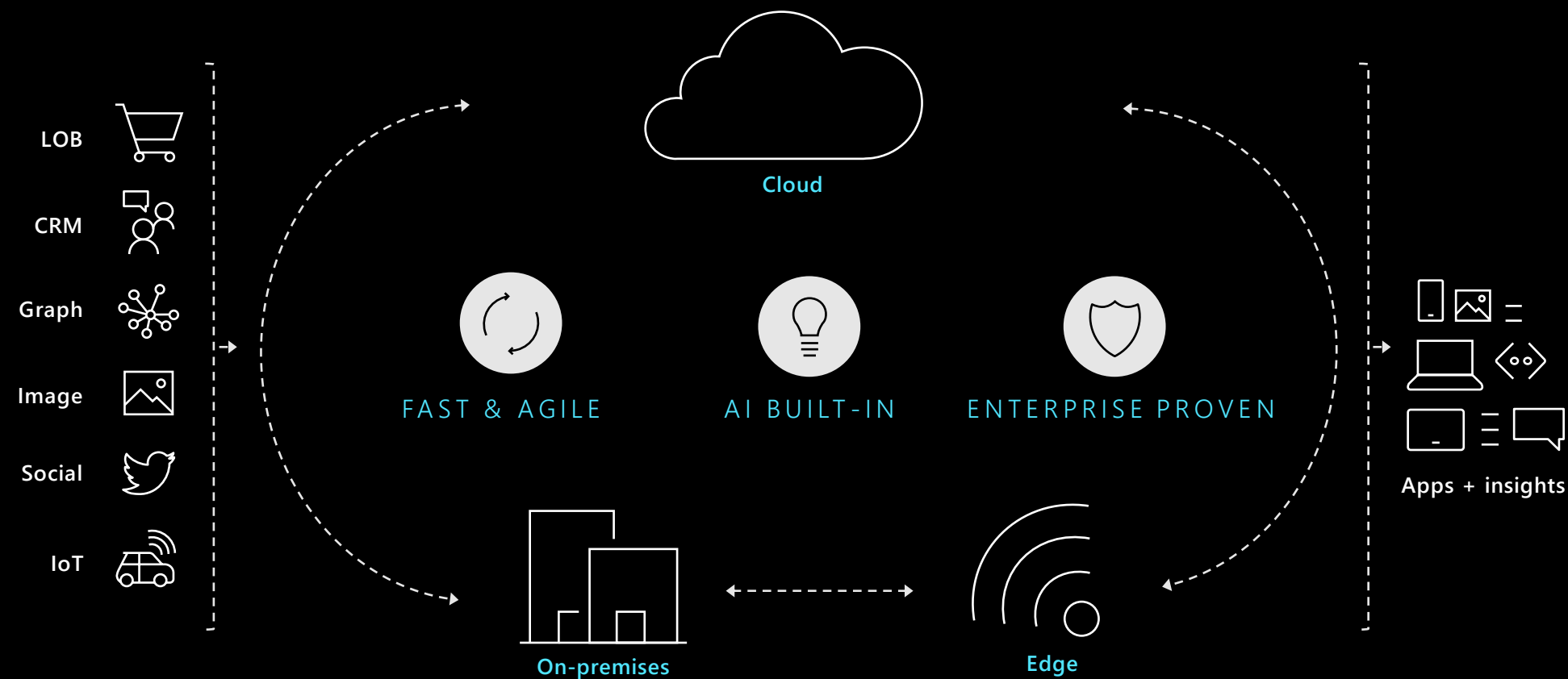




# Our mission

Empower every person and  
every organization on the  
planet to achieve more

# Intelligent Cloud & Intelligent EDGE





# 61

Azure regions worldwide -  
More than AWS & Google  
combined

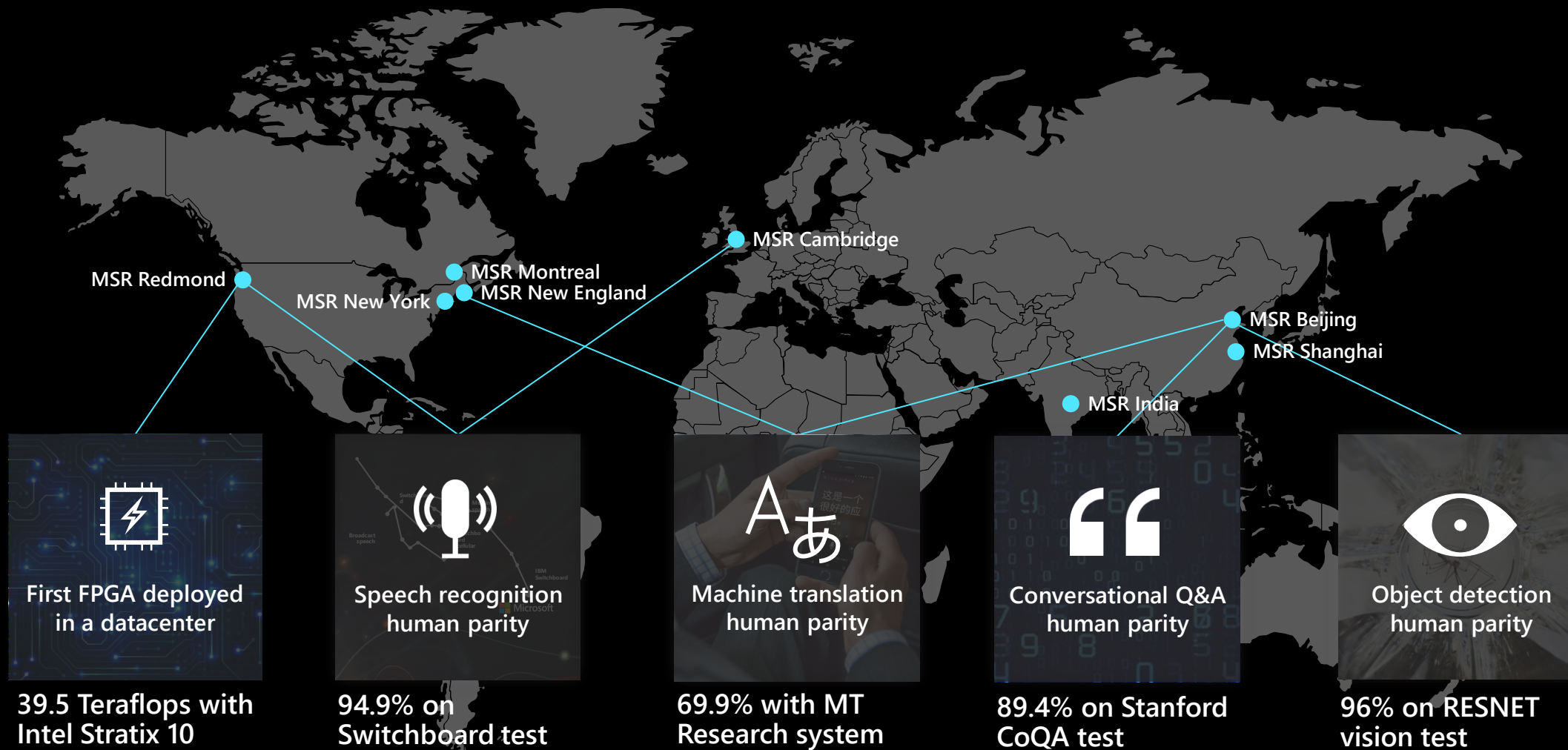
# >92

Compliance  
certifications

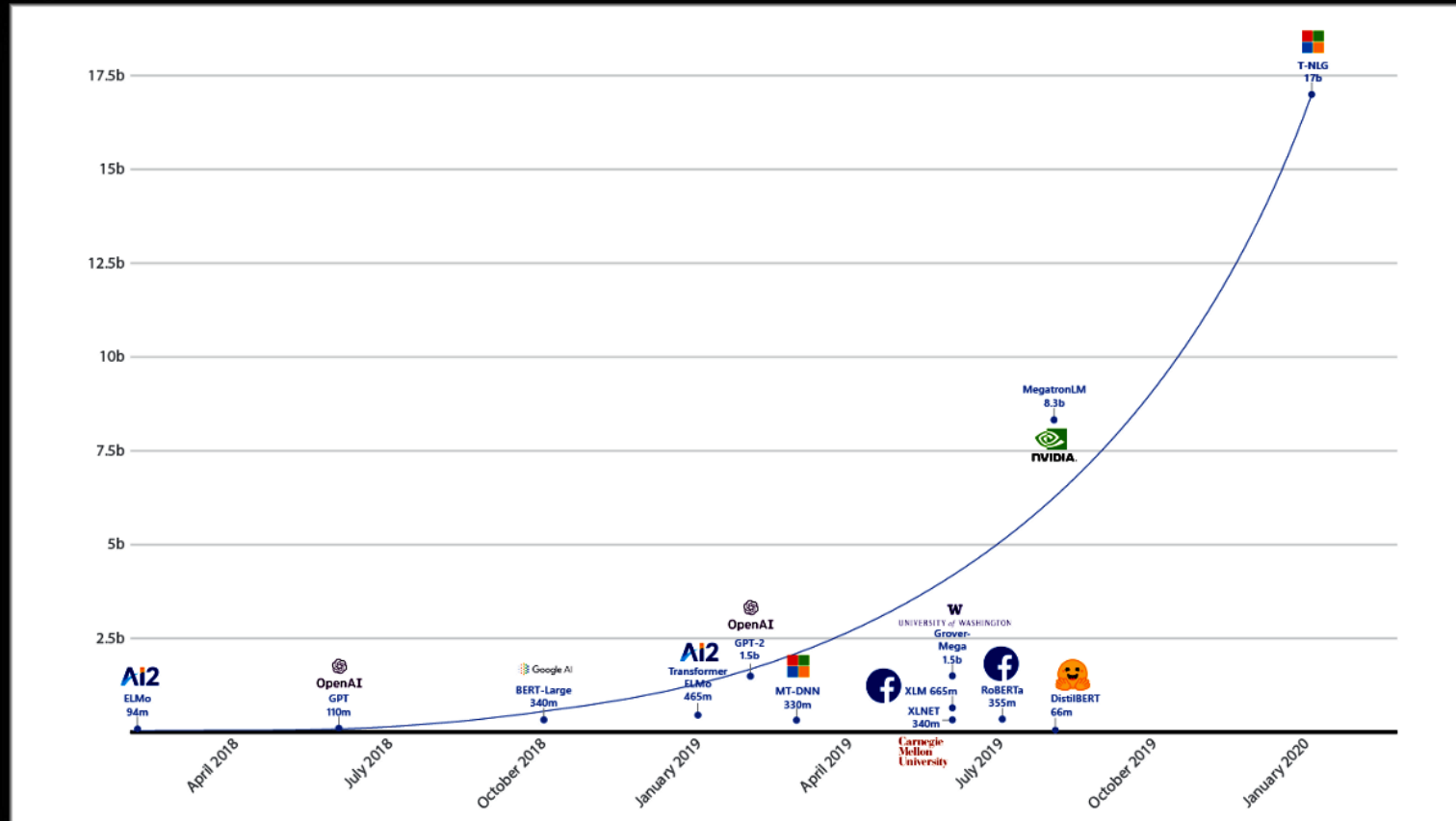


# Azure AI

Fueled by breakthrough research



# Language models evolution

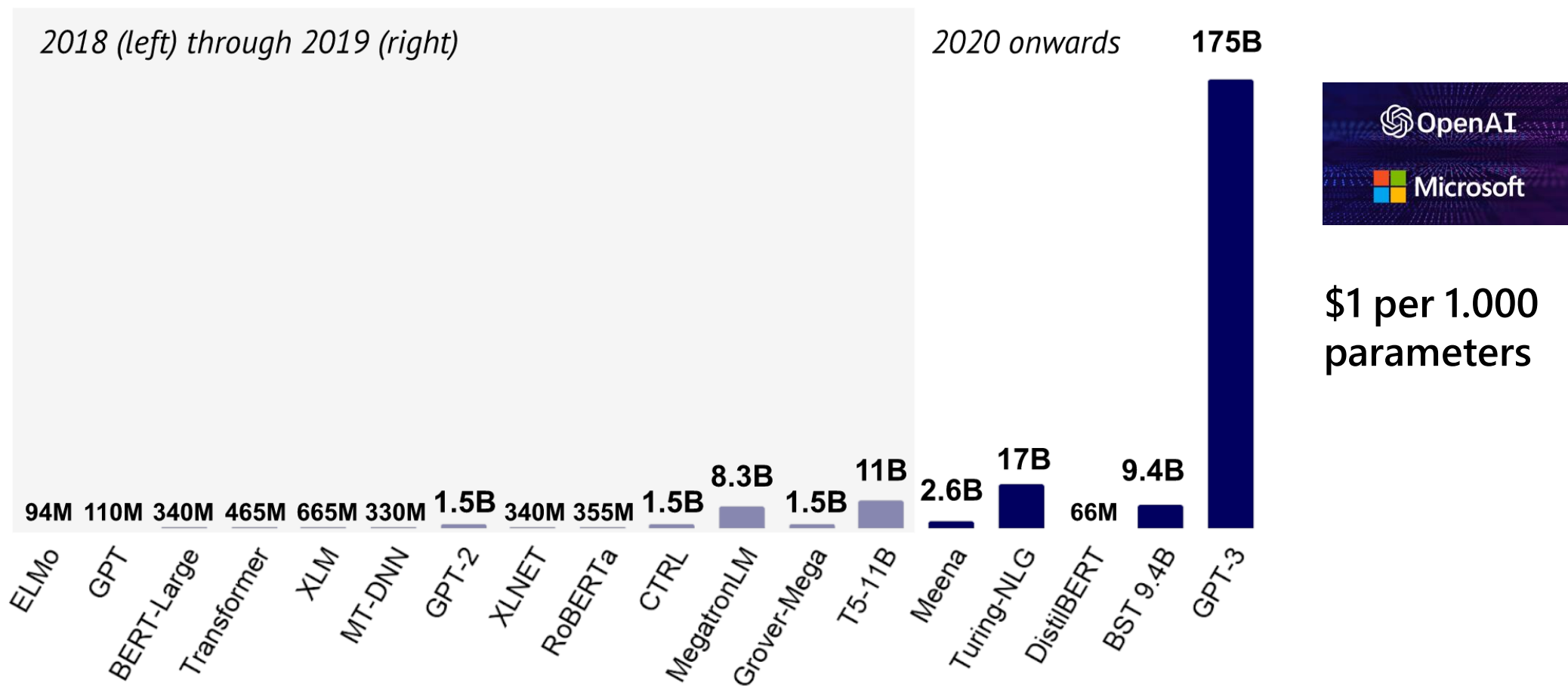


Language models  
represented by the size  
of parameters



# Language models: Welcome to the Billion Parameter club

► Huge models, large companies and massive training costs dominate the hottest area of AI today, NLP.



Note: The number of parameters indicates how many different coefficients the algorithm optimizes during the training process.

# Azure Artificial Intelligence



## Pre-built AI models

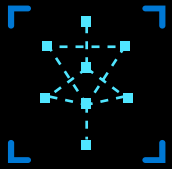
Azure Cognitive Services



## Custom AI models

Azure Machine Learning

# Azure Cognitive Services



Vision



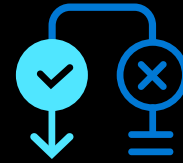
Speech



Search



Language



Decision

# Demo

Cognitive Services: [Cognitive Services—APIs for AI Developers | Microsoft Azure](#)

Custom Vision: <https://www.customvision.ai/>

# 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



Visual Studio Code



Azure Notebooks



Jupyter



Command line

## Popular frameworks

To build advanced deep learning solutions



PyTorch



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



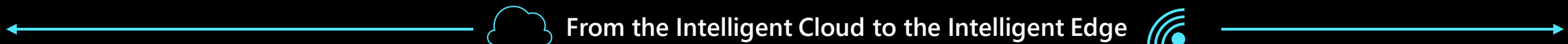
CPU



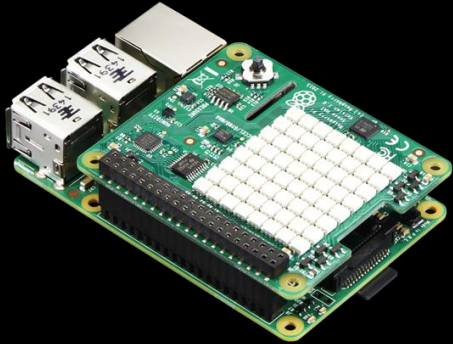
GPU



FPGA

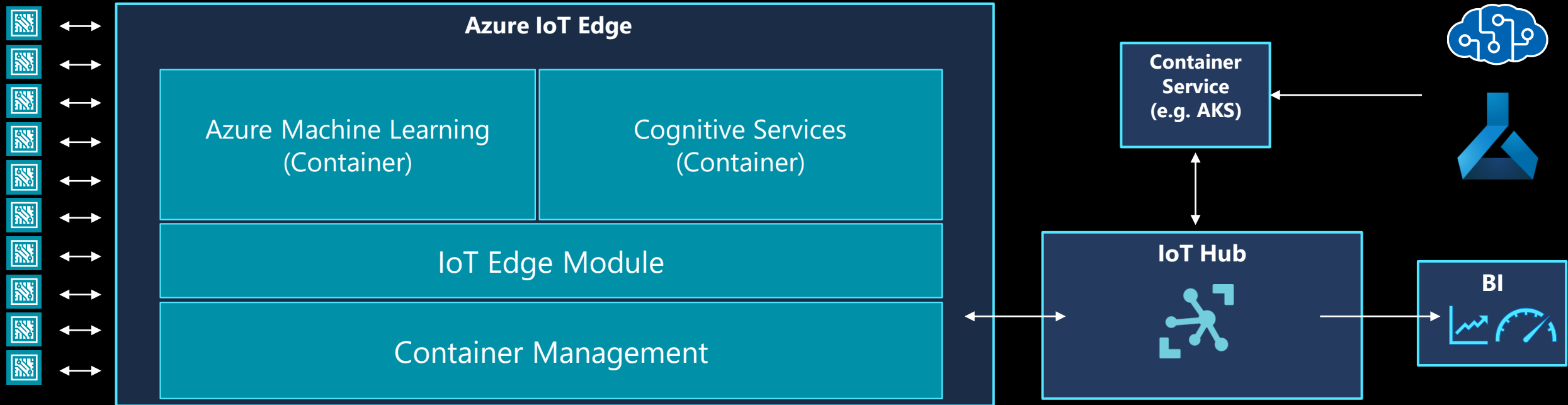


# Azure IoT Edge



## AI and ML

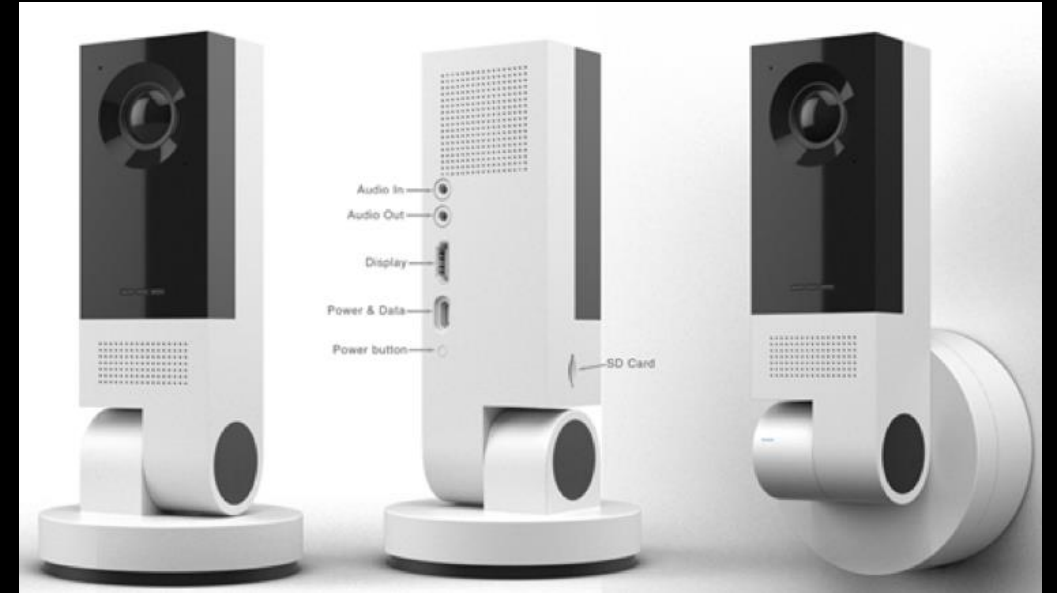
- Azure Machine Learning
- Custom Vision
- AI Docker Container



# Developer Kits



NVIDIA Jetson Nano



Qualcomm Vision AI DevKit



# Demo

NVIDIA Jetson Nano: [Jetson Nano Entwicklerkit für KI und Robotik | NVIDIA](#)

Azure IoT Edge: [IoT Edge | Microsoft Azure](#)



A close-up, low-angle shot of King Kong roaring with his mouth wide open, showing sharp teeth and a red tongue. He is in a lush jungle with dense green foliage and trees. In the background, misty mountains are visible under a cloudy sky. The image has a cinematic quality with high contrast and vibrant colors.

**If AI is King**

**Then Data Foundation is King Kong**



# The Azure Data & AI Services

## Batch Data Ingestion & Tools



Azure Data Factory



Azure Import/Export service



Azure CLI



Azure SDK

## Streaming Data Ingestion



Azure IoT Hub



Azure Event Hub



Kafka on Azure HDInsight

## Database



Azure SQL DB



Azure Cosmos DB

## (Big) Data Stores



Azure Blob Storage



Azure Data Lake Store

## Search & Metadata Management



Azure Search



Azure Data Catalog

## Datawarehouse & Analytics



Azure Synapse Analytics

## (Big) Data Processing - Batch



Azure HDInsight



Azure Databricks

## (Big) Data Processing - Streaming



Azure Stream Analytics



Azure HDInsight



Azure Databricks

## Data Preparation & BI & Visualization



Azure Analysis Services



Power BI

## Machine Learning



Azure ML



Azure Databricks

## Bot & Cognitive Services



Bot service



Cognitive services

## Infrastructure & App Dev



Azure ExpressRoute



Azure Active Directory



Azure network security groups



Azure key management service



Operations Management Suite

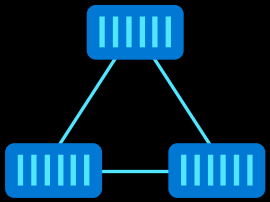


Azure Functions

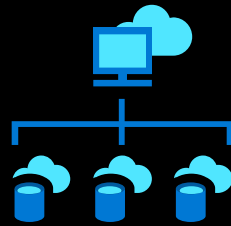


Visual Studio

# Build Modern Data & AI Solutions



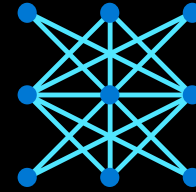
Containers



Managed  
Databases



Analytical  
Platforms



Artificial  
Intelligence



Serverless



# Microsoft Learn

Interactive step-by step tutorials

Hands-on learning & coding environments

Knowledge checks to validate learning & earn achievements

Upskill your whole Enterprise with our Enterprise Skilling Initiative

 [Microsoft.com/Learn](https://microsoft.com/learn)



TOGETHER WE'RE CHANGING THE WORLD



Microsoft