

Democratizing AI to empower individuals, organizations and society

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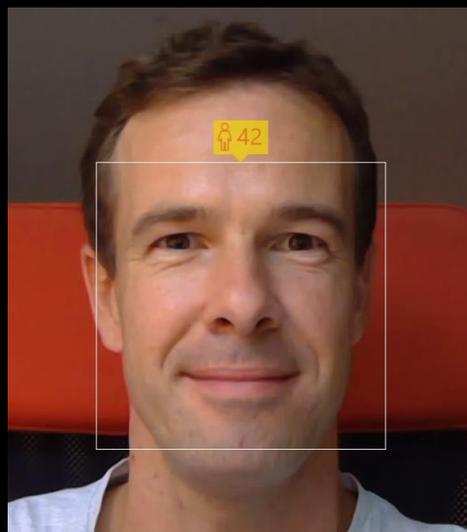


[linkedin.com/in/marcelfranke](https://www.linkedin.com/in/marcelfranke)

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

91.6%

175
zettabytes

150B

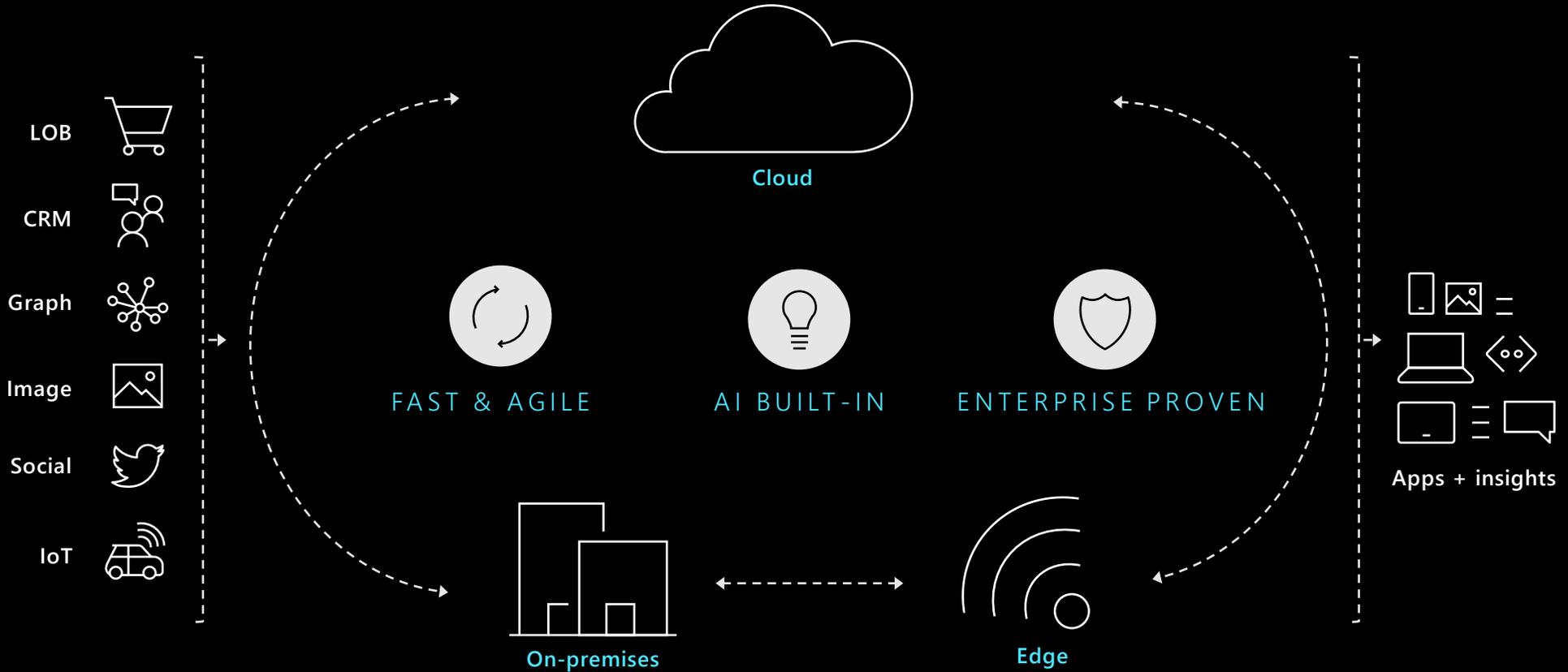
\$5.2m



Our mission

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

Intelligent Cloud & Intelligent EDGE





61

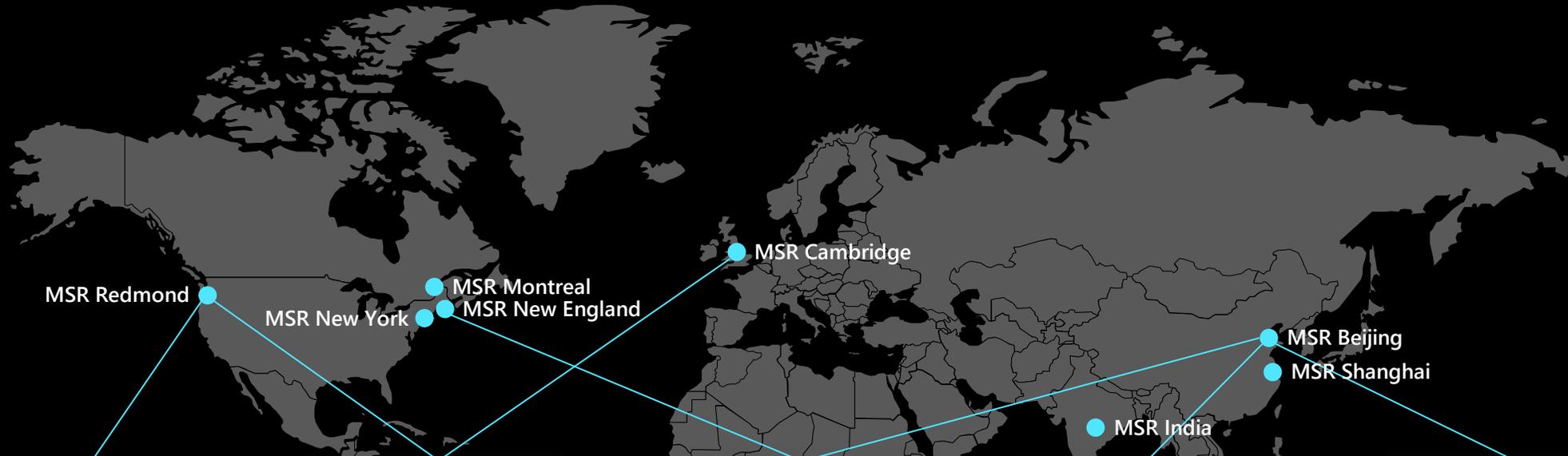
Azure regions worldwide -
More than AWS & Google
combined

>92

Compliance
certifications

Azure AI

Fueled by breakthrough research



First FPGA deployed in a datacenter

39.5 Teraflops with Intel Stratix 10



Speech recognition human parity

94.9% on Switchboard test



Machine translation human parity

69.9% with MT Research system



Conversational Q&A human parity

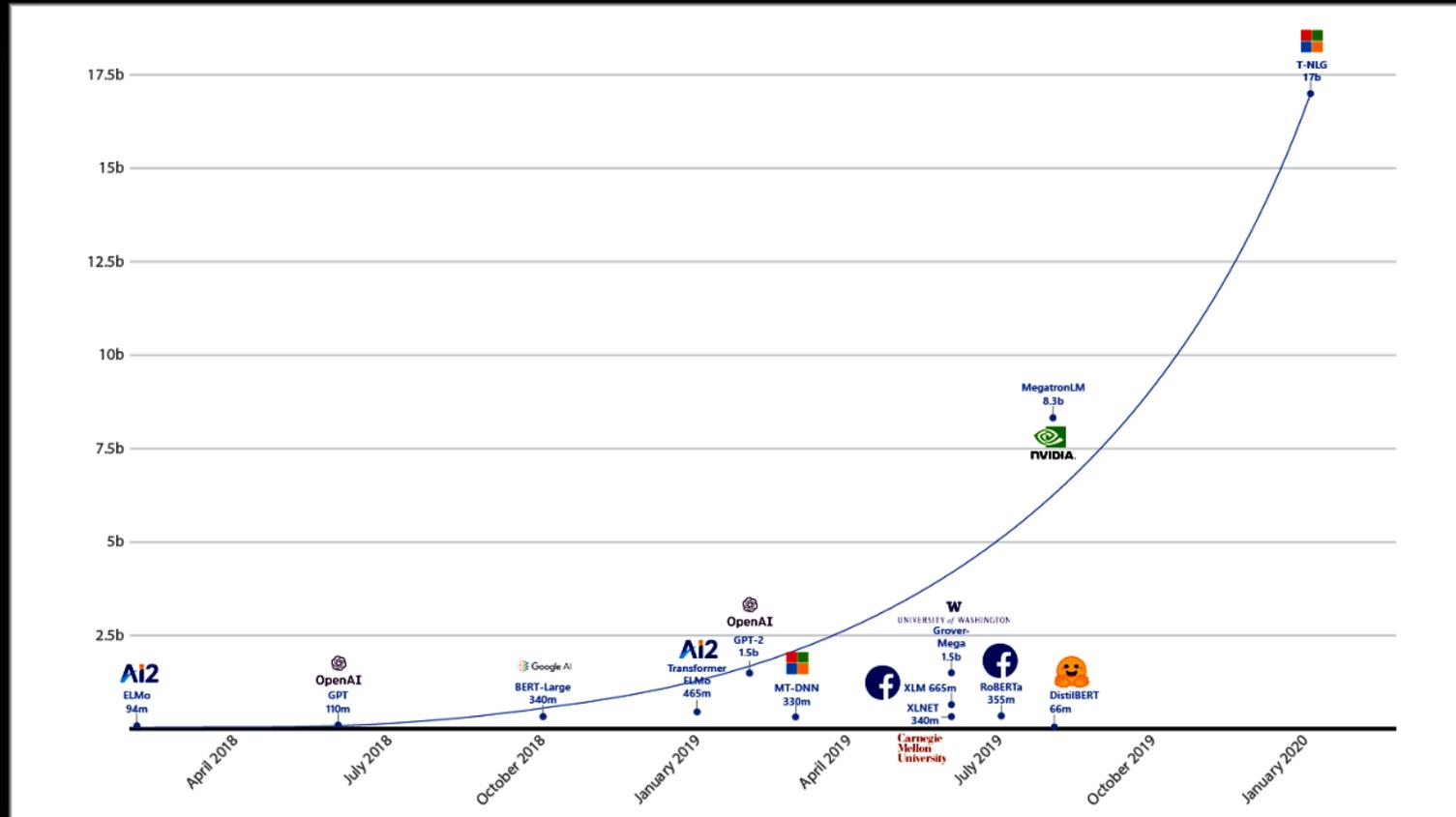
89.4% on Stanford CoQA test



Object detection human parity

96% on RESNET vision test

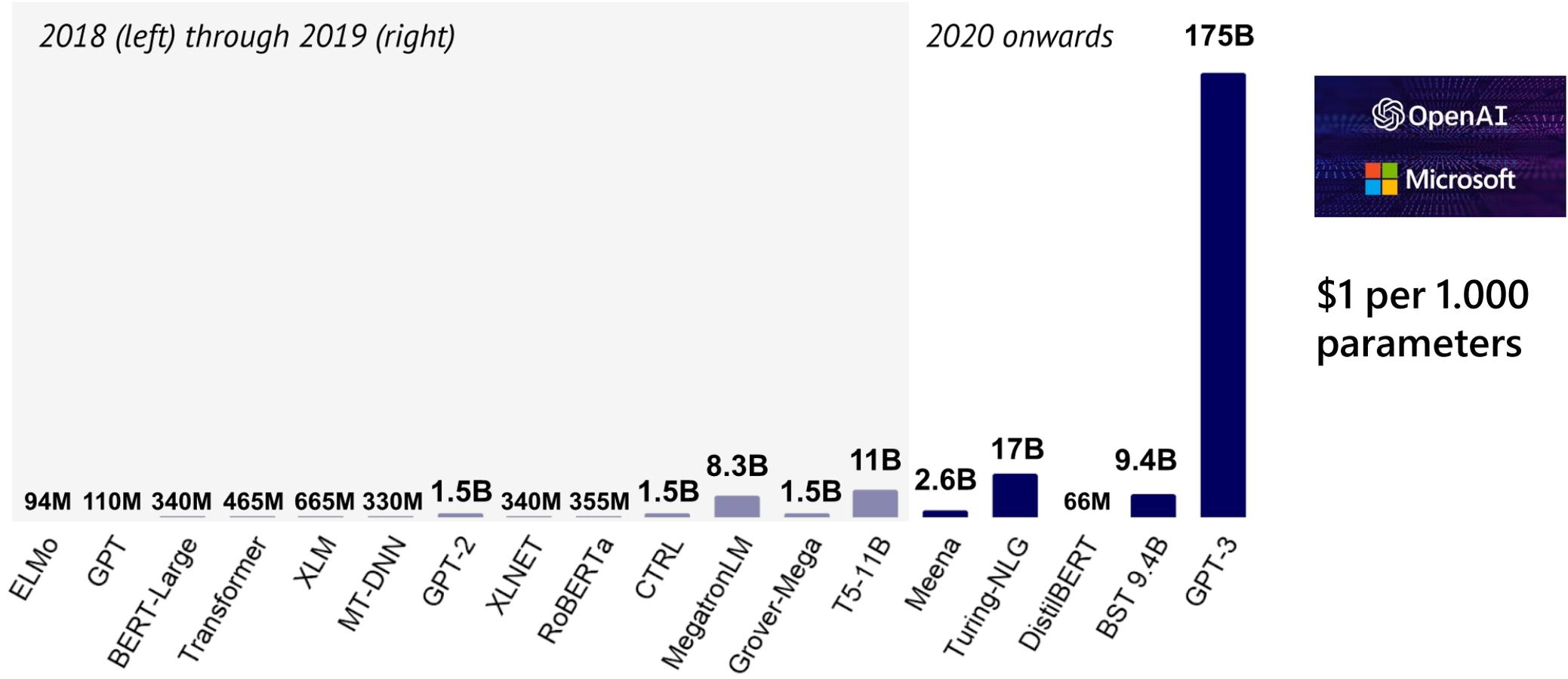
Language models evolution



Language models represented by the size of parameters

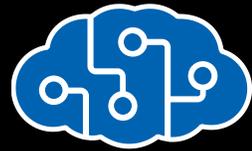
Language models: Welcome to the Billion Parameter club

▶ 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



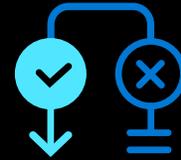
Speech



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



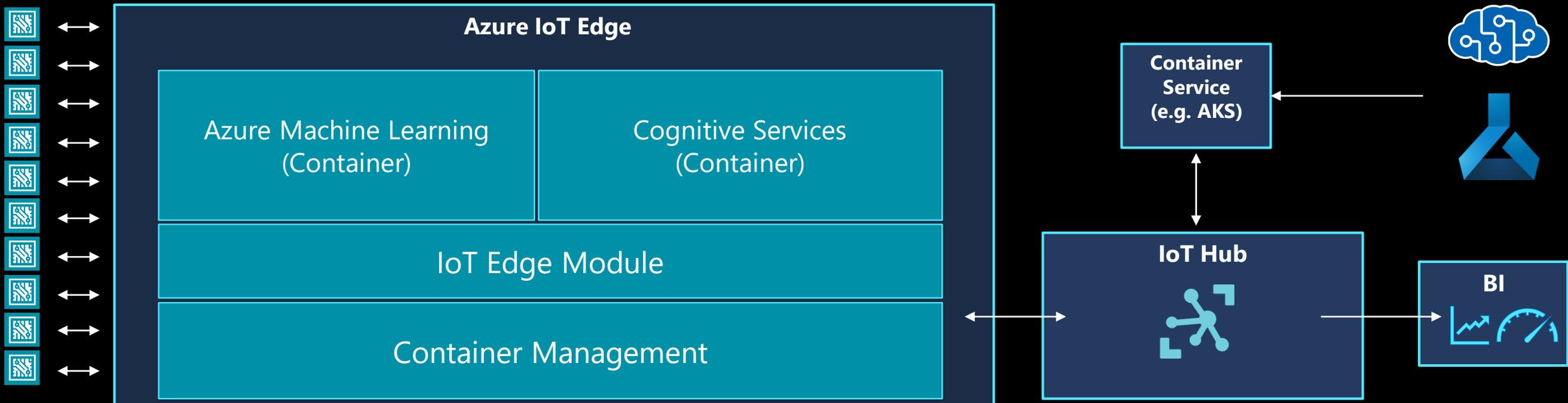
FPGA

Azure IoT Edge



AI and ML

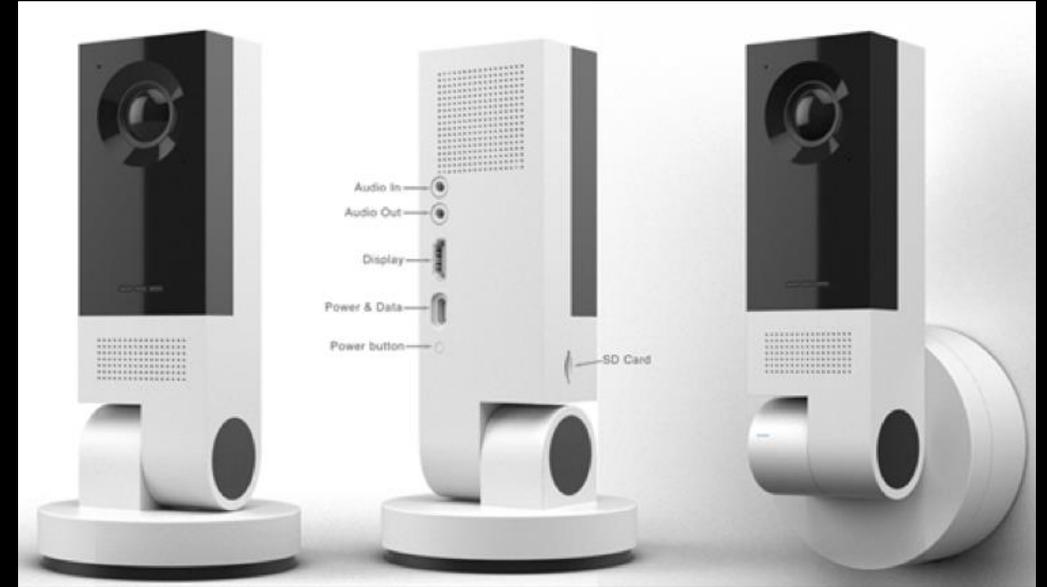
- Azure Machine Learning
- Custom Vision
- AI Docker Container



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, high-angle shot of King Kong, the giant gorilla, roaring with his mouth wide open. He is covered in dark, shaggy fur and has a fierce, angry expression. The background shows a lush, green jungle with tall trees and a misty, mountainous landscape under a cloudy sky. The lighting is natural, highlighting the texture of his fur and the details of his teeth and tongue.

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

Database



Azure SQL DB



Azure Cosmos DB

Datawarehouse & Analytics



Azure Synapse Analytics

Data Preparation & BI & Visualization



Azure Analysis Services



Power BI

(Big) Data Stores



Azure Blob Storage



Azure Data Lake Store

(Big) Data Processing - Batch



Azure HDInsight



Azure Databricks

Machine Learning



Azure ML



Azure Databricks

Streaming Data Ingestion



Azure IoT Hub



Azure Event Hub



Kafka on Azure HDInsight

Search & Metadata Management



Azure Search



Azure Data Catalog

(Big) Data Processing - Streaming



Azure Stream Analytics



Azure HDInsight



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

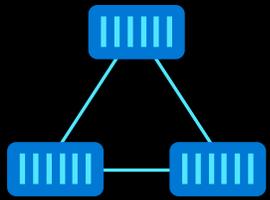


Azure Functions

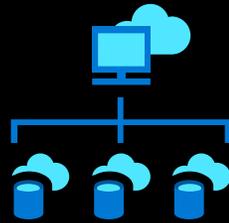


Visual Studio

Build Modern Data & AI Solutions



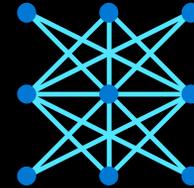
Containers



Managed
Databases



Analytical
Platforms



Artificial
Intelligence



Serverless

A group of five diverse people are gathered around a wooden table in a cafe or office setting. They are engaged in a collaborative work session. On the left, a man in a green jacket is looking at a laptop. Next to him, a woman in a blue patterned cardigan is typing on a laptop. In the center, a man in a grey blazer is looking at a laptop. To his right, a woman with curly hair is speaking and gesturing with her hands. On the far right, a woman with long blonde hair is looking at a document. The table is cluttered with laptops, papers, and coffee cups. The background shows a busy cafe environment with other people and warm lighting.

TOGETHER WE'RE CHANGING THE WORLD

