



# Reactor

Azure 認知服務動手實驗



## Download Today's Event Resources

Includes free learning path courses  
& documentation on AI Fundamentals

(Scan QR Code)



<https://aka.ms/AAer0x6>



## Stay Connected with Us!



[youtube.com/microsofthk](https://youtube.com/microsofthk)



@mshktech



@Microsoft HK Dev Community

# 个人介绍



## Kinfey Lo – (盧建暉)

Microsoft Cloud Advocate

前微軟MVP、Xamarin MVP和微軟RD，擁有超過10年的雲原生、人工智能和流動應用開發經驗，為教育、金融和醫療提供應用。在微軟，為技術人員和不同行業宣講技術和相關應用場景。

Love Coding(Python , C# , TypeScript , Swift , Rust , Go )

專注於人工智能，雲原生，流動平台移動開發

**Github :** <https://github.com/kinfey>

**Email :** [kinfeylo@microsoft.com](mailto:kinfeylo@microsoft.com)   **Blog :** <https://dev.to/kinfey>

**Twitter :** @Ljh8304

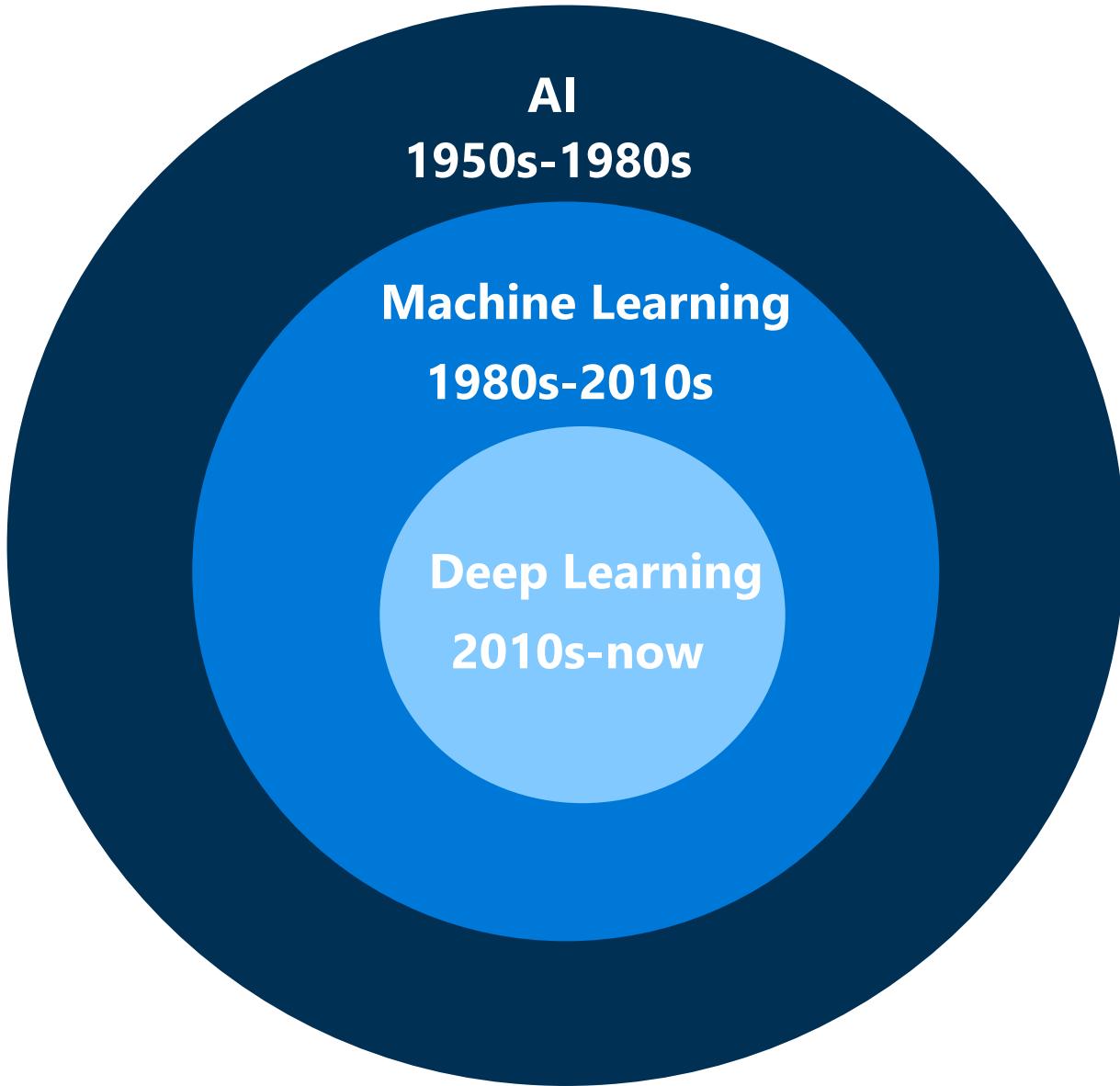


# 人工智能為何物



# 技術不斷變





# AI最常用場景



計算機視覺

語言/文字/Chatbot

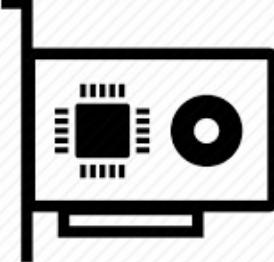


知識

# 如何做AI ?



Local PC / Laptop

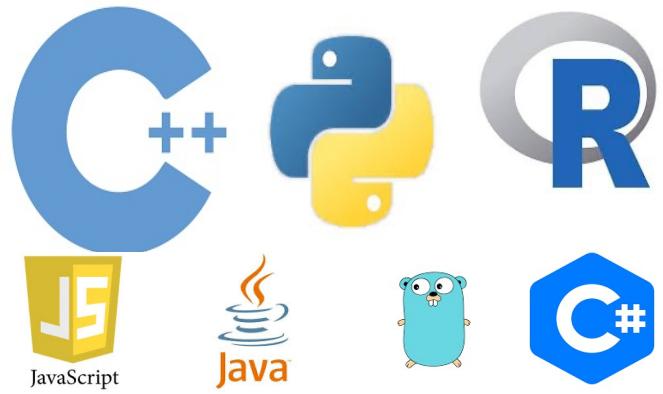


GPU



Cloud Computing

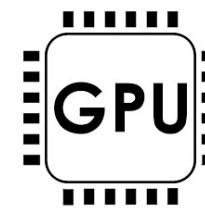
# AI點做



程式



框架



Hardware

# 複雜，係咁88先



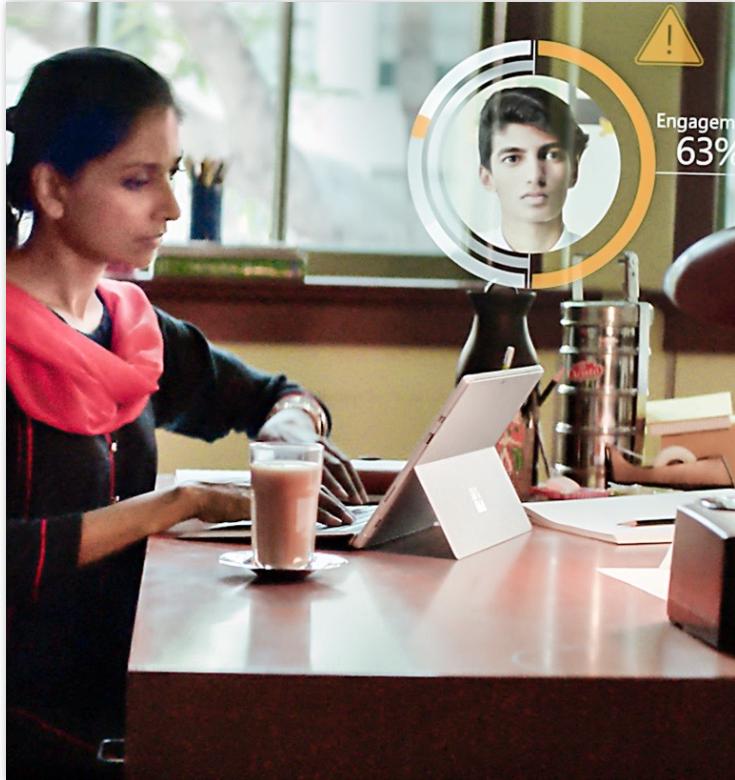
# 微软的 Machine Learning



# AI主要驅動力

AI drivers

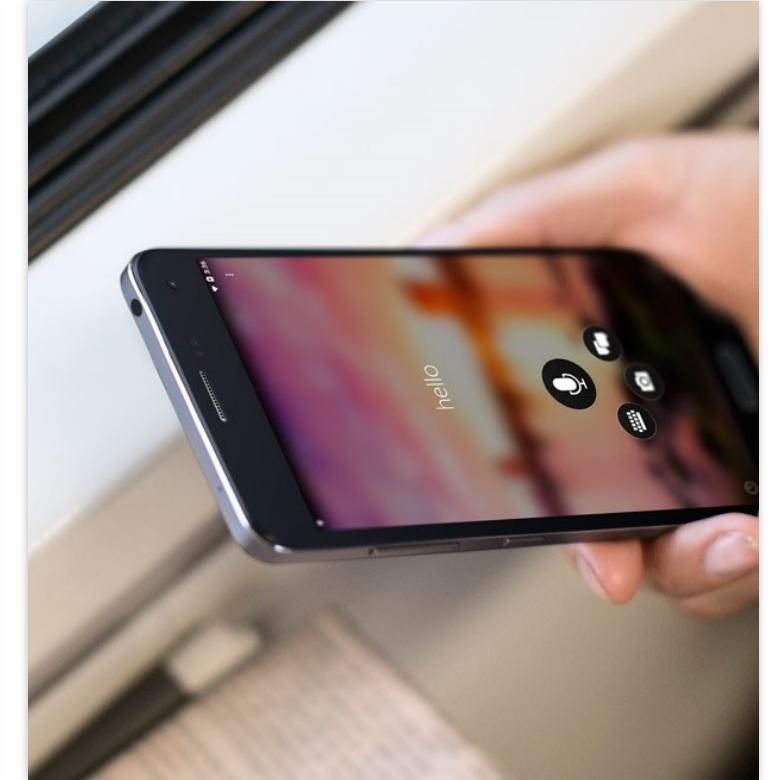
雲 Cloud / Compute



數據 Data

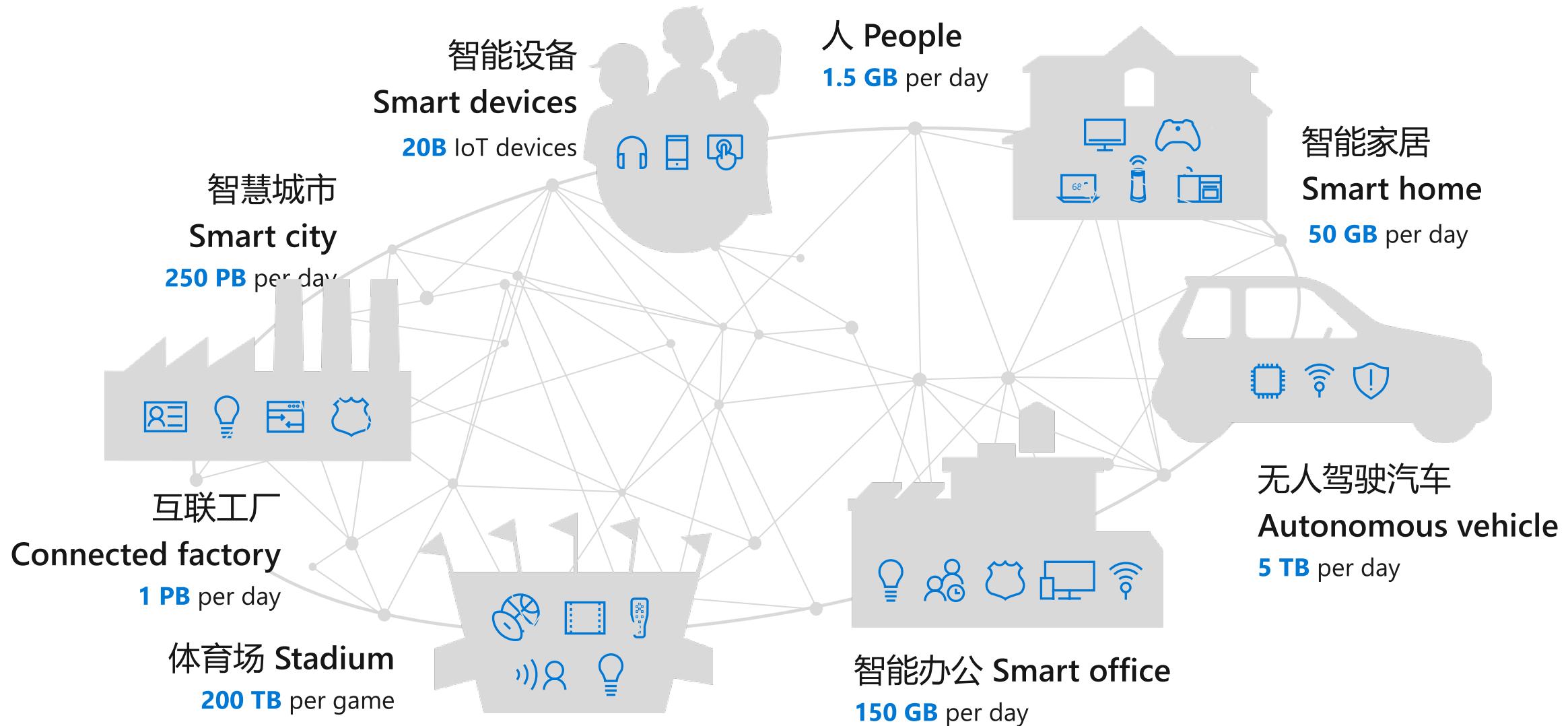


算法 Algorithms

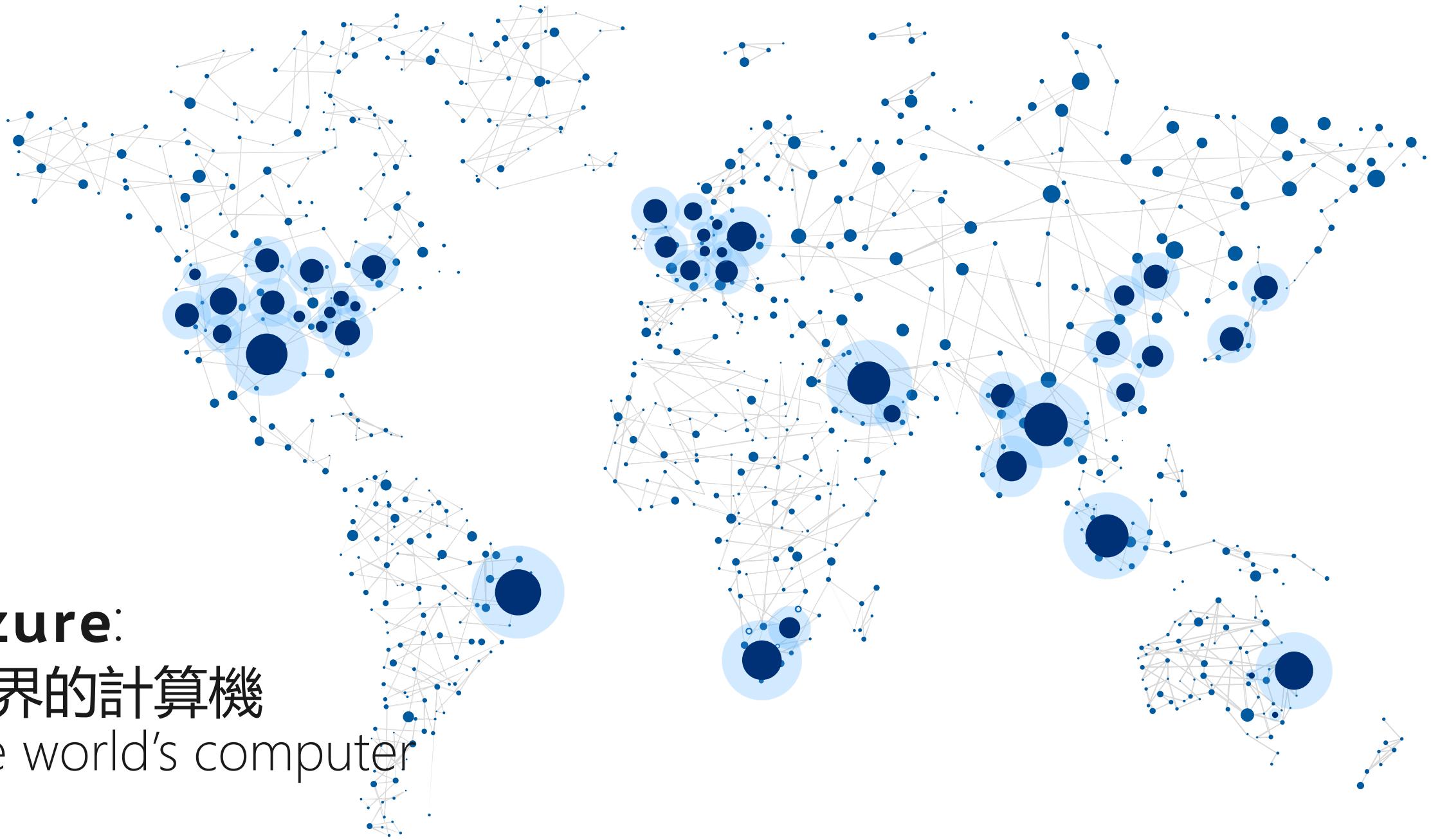


# 2020 年個世界

Data by 2020...



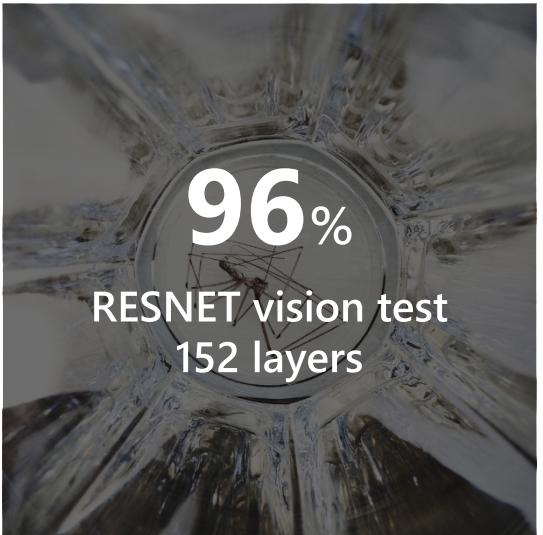
**Azure:**  
世界的計算機  
the world's computer



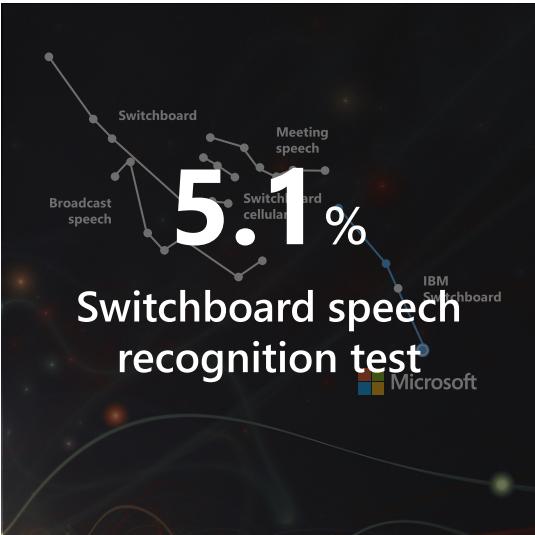
# 微軟人工智能爆點

## Microsoft AI breakthroughs

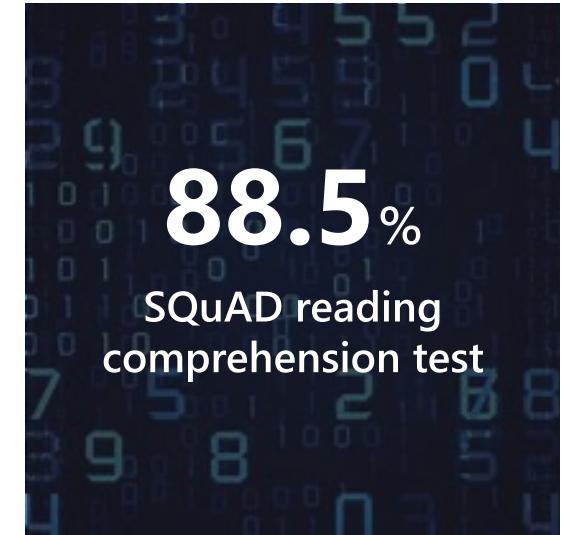
### 視覺 Vision



### 語音 Speech



### 語言 Language



2016

Object recognition  
Human parity

2017

Speech recognition  
Human parity

March 2018

Machine translation  
Human parity

January 2018

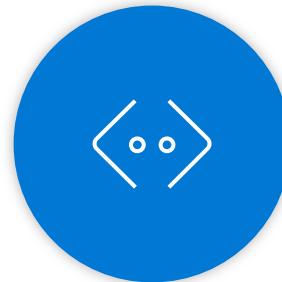
Machine reading comprehension  
Human parity

# 微軟人工智能 投入多個領域

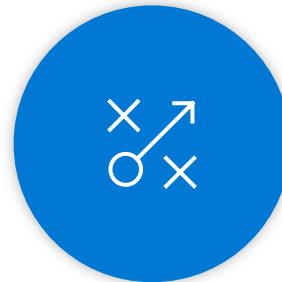
Microsoft AI  
investment areas



AI 平臺 (AI platform)



AI 融入 (Infusing AI)

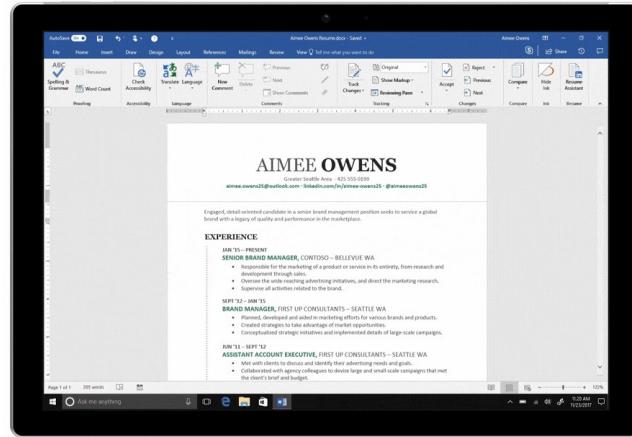


商業方案(Business solutions)

# AI 融入 Infusing AI

人臉識別、小娜、電子筆  
Facial recognition | Cortana | Inking

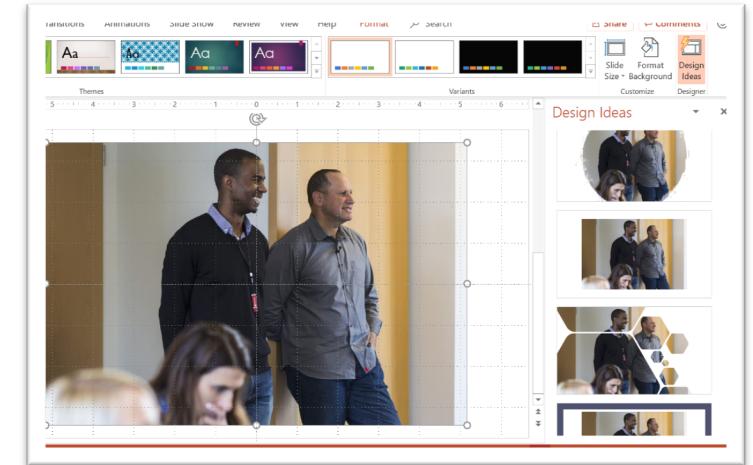
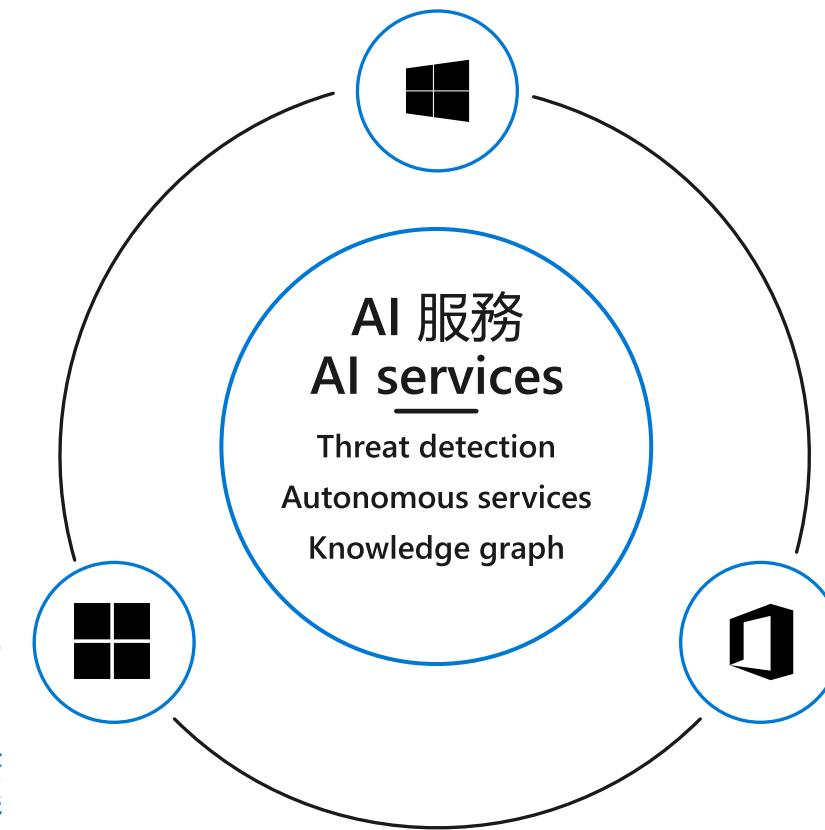
Windows



Visual Studio

深度學習框架  
AI模型管理、樣例集

Deep learning frameworks |  
Manage AI models | Sample gallery



Office

設計師、變形切換  
簡歷助手、數據類型  
Designer | Morph transition |  
Resume assistant | Data types

# Azure 認知服務

## Azure Cognitive Services



# The Microsoft AI platform

*Cloud-powered AI for every developer*

## Services

### CUSTOM AI

Azure Machine Learning

### PRE-BUILT AI

Cognitive Services

### CONVERSATIONAL AI

Bot Framework

## Tools

### CODING & MANAGEMENT TOOLS

VS Tools  
for AI

Azure ML  
Studio

Azure ML  
Workbench

Others (PyCharm, Jupyter Notebooks...)

## Infrastructure

### AI ON DATA

Cosmos  
DB

SQL  
DB

SQL  
DW

Data  
Lake

Spark

DSVM

### AI COMPUTE

Batch  
AI

ACS

Edge

CPU, FPGA, GPU

### DEEP LEARNING FRAMEWORKS

3rd Party

Cognitive  
Toolkit

TensorFlow

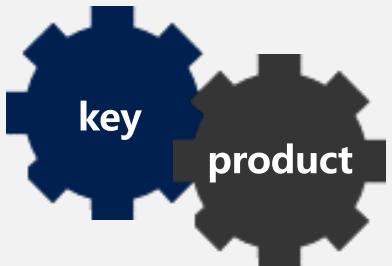
Caffe

Others (Scikit-learn, MXNet, Keras,  
Chainer, Gluon...)

# 選擇認知服務理由



簡單



柔性



支援性強



# 認知服務



# 計算機視覺開始玩起

[https://github.com/kinfey/MSCloudAdvocateHKClassRoom/tree/main/AzureCognitiveServiceHandsOnLabHK\\_202111/AzureComputerVisionHOL/code](https://github.com/kinfey/MSCloudAdvocateHKClassRoom/tree/main/AzureCognitiveServiceHandsOnLabHK_202111/AzureComputerVisionHOL/code)

1. OCR

2. 計算機自定義視覺

3. 專業訓練的計算機視覺



# Chatbot



# 計算機視覺開始玩起

[https://github.com/kinfey/MSCloudAdvocateHKClassRoom/tree/main/AzureCognitiveServiceHandsOnLabHK\\_202111/AzureChatbotHOL/pdf](https://github.com/kinfey/MSCloudAdvocateHKClassRoom/tree/main/AzureCognitiveServiceHandsOnLabHK_202111/AzureChatbotHOL/pdf)

1. 搭建Chatbot
2. 部署Chatbot到雲端
3. QnA Maker 使用
4. LUIS使用
5. 做一個COVID-19 Chatbot





# Reactor

## Thank You!