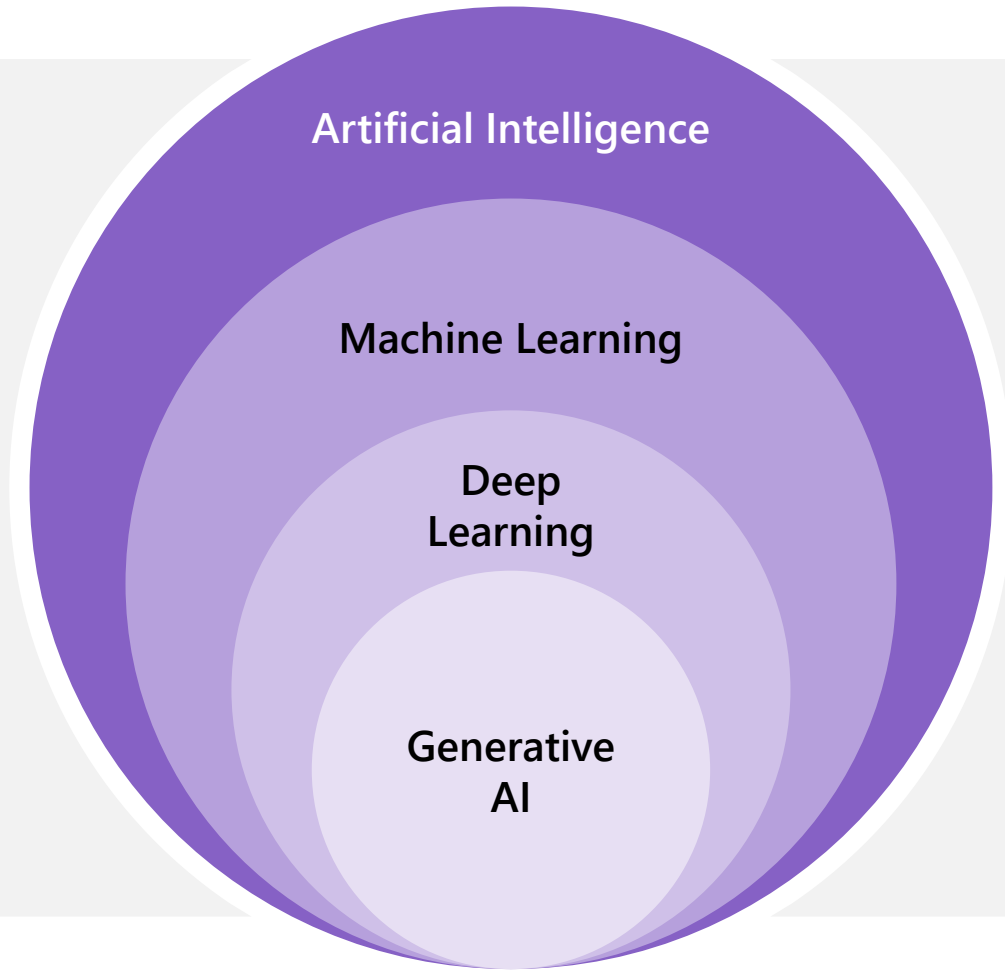**Microsoft Azure**

Azure OpenAI Service

Sophia Cullen
Partner Solution Architect AI

Created using Dall-E 3 (Prompt: „a group of people gathering around to create innovative AI products. They are speaking to each other ")

The journey continues with generative AI

Artificial Intelligence
- Machine Learning
  - Deep Learning
    - Generative AI

1956 — **Artificial Intelligence**
The field of computer science that seeks to create intelligent machines that can replicate or exceed human intelligence.

1997 — **Machine Learning**
Subset of AI that enables machines to learn from existing data and improve upon that data to make decisions or predictions.

2012 — **Deep Learning**
A machine learning technique in which layers of neural networks are used to process data and make **decisions.**

2021 — **Generative AI**
Create new written, visual, and auditory content given prompts or existing data.

Microsoft and OpenAI partnership

OpenAI

Ensure that artificial general intelligence (AGI) benefits humanity

Microsoft

Empower every person and organization on the planet to achieve more

Azure OpenAI Service

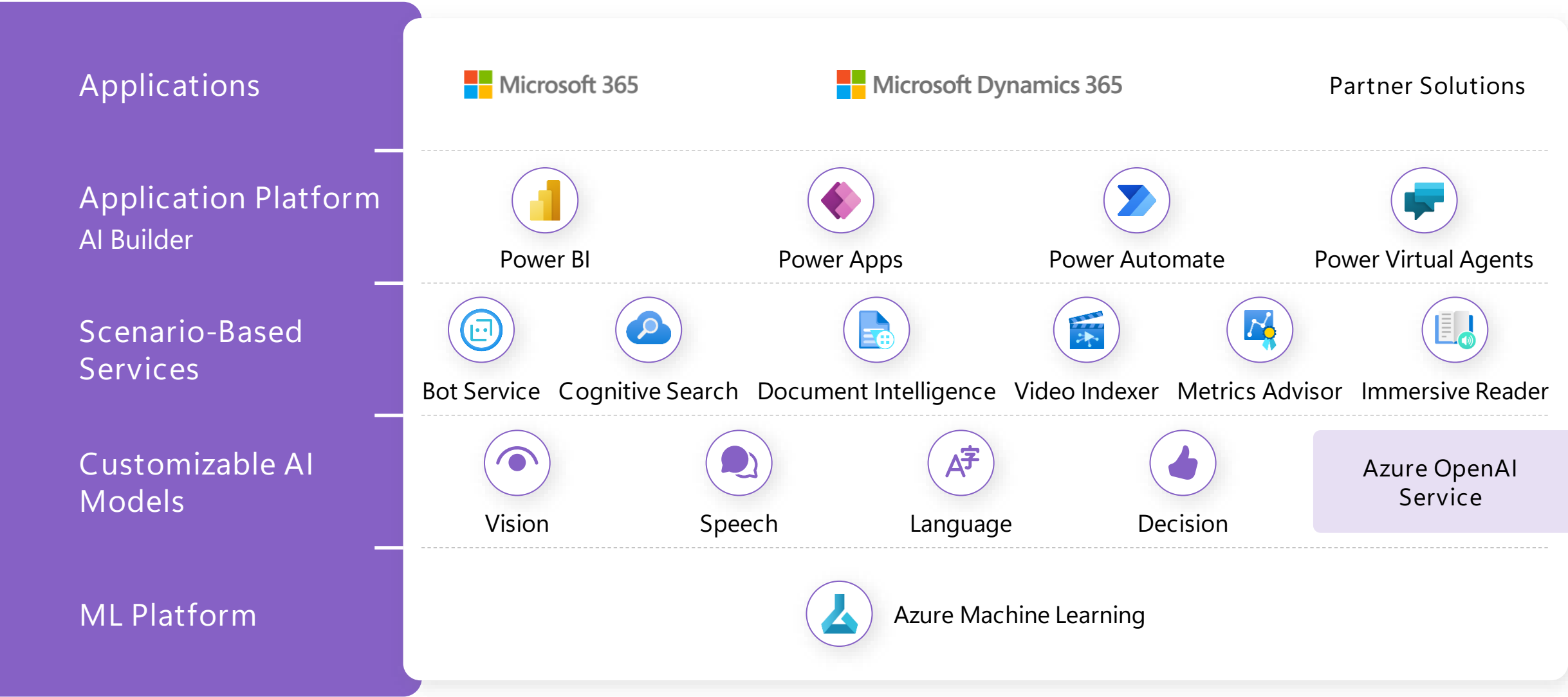| GPT-4 & GPT-3.5-Turbo	Chat Completions	DALL·E 2	Whisper
Text	Conversation	Image	Transcription & Translation

Microsoft is powered by Azure AI

Applications	Microsoft 365	Microsoft Dynamics 365	Partner Solutions

Application Platform
AI Builder

Power BI	Power Apps	Power Automate	Power Virtual Agents

Scenario-Based Services

Bot Service	Cognitive Search	Document Intelligence	Video Indexer	Metrics Advisor	Immersive Reader

Customizable AI Models

Vision	Speech	Language	Decision	Azure OpenAI Service

ML Platform

Azure Machine Learning

A copilot for every Microsoft Cloud experience

Microsoft 365 Copilot
Empower everyone with a copilot that works alongside you

Dynamics 365 Copilot
Specialized copilots for every role and function

Copilot in Power Platform
Imagine it, describe it, and Power Platform builds it

Microsoft Security Copilot
Defend at machine speed with Microsoft Security Copilot

Windows Copilot
The first centralized AI assistance on a platform

GitHub Copilot
Increase developer productivity to accelerate innovation

OpenAI is not a knowledge base / search engine

Classify Microsoft, UBS, SAP, Vodafone, FedEx and Zurich Insurance into their verticals. Also print the revenue for 2020. Print it as COMPANY; VERTICAL; REVENUE. Show revenue as $x.xxbn

Microsoft; Technology; $125.84bn
UBS; Financial Services; $45.47bn
SAP; Technology; $31.20bn
Vodafone; Telecommunications; $21.61bn
FedEx; Logistics; $67.00bn
Zurich Insurance; Insurance; $66.60bn

Classify Microsoft, UBS, SAP, Vodafone, FedEx and Zurich Insurance into their verticals. Also print the revenue for 2020. Print it as COMPANY; VERTICAL; REVENUE. Show revenue as $x.xxbn

Microsoft; Technology; $143.02bn
UBS; Banking; $46.76bn
SAP; Technology; $29.12bn
Vodafone; Telecommunications; $21.12bn
FedEx; Logistics; $69.20bn
Zurich Insurance; Insurance; $44.37bn

Numbers from language model

Ankara is inland, no ferry

Tell me the advantages of the ferry connection between Ankara and Istanbul

1. Cost-Effective: Taking the ferry between Ankara and Istanbul is a way to travel between the two cities. It is much cheaper than takin

2. Convenient: The ferry connection between Ankara and Istanbul reliable. It runs regularly throughout the day, making it easy to pla

3. Enjoyable: Taking the ferry between Ankara and Istanbul is a gre the scenery along the way. You can sit back and relax as you take two cities and the surrounding countryside.

4. Time-Saving: Taking the ferry between Ankara and Istanbul is a option. It takes less time than driving or taking the train, so you ca destination faster.

5. Environmentally Friendly: Taking the ferry between Ankara and environmentally friendly way to travel. It does not produce any em a much more sustainable option than other forms of transportatio

GPT-4's got it!

Model: legacy (GPT-3.5)

What is the advantage of taking a ferry from Ankara to Istanbul? Few concise bullet points please.

< 3/3 >

Sure, here are some of the advantages of taking a ferry from Ankara to Istanbul:

- Convenience: Taking a ferry can be more convenient than traveling by road or air, as it eliminates the need for additional transfers and eliminates the need to go through security checks.
- Scenic route: Ferries offer a scenic route with views of the coastline and countryside that can be enjoyed from the comfort of the ferry.
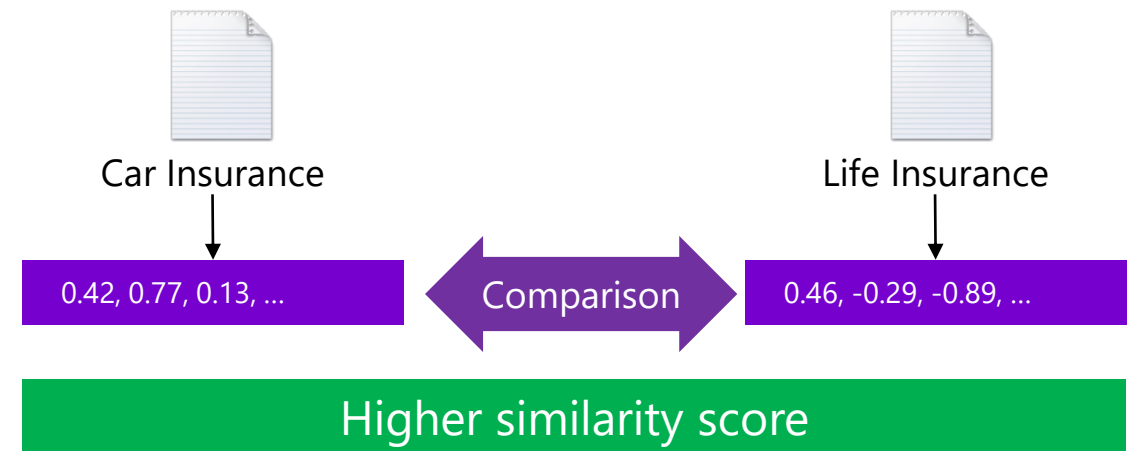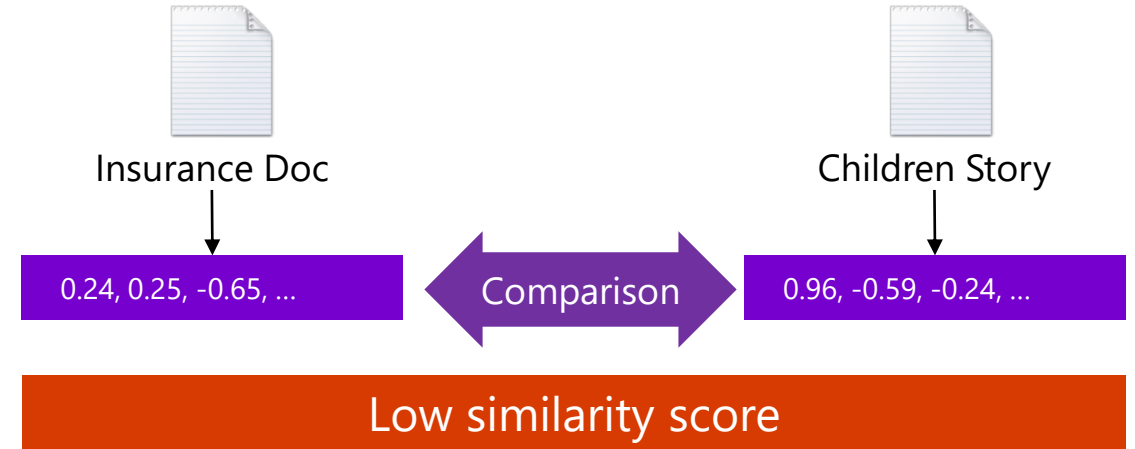
Model: GPT-4

What is the advantage of taking a ferry from Ankara to Istanbul?

There is no direct ferry service from Ankara to Istanbul, as Ankara is an inland city and not located on the coast. The primary means of transportation between Ankara and Istanbul are by road, rail, or air.

However, if you are interested in incorporating a ferry ride into your travel, you can take a bus or train from Ankara to a coastal city, such as Bursa, Yalova, or Bandirma, and then take a ferry to Istanbul. The advantage of this approach is that you get to enjoy a scenic ferry ride
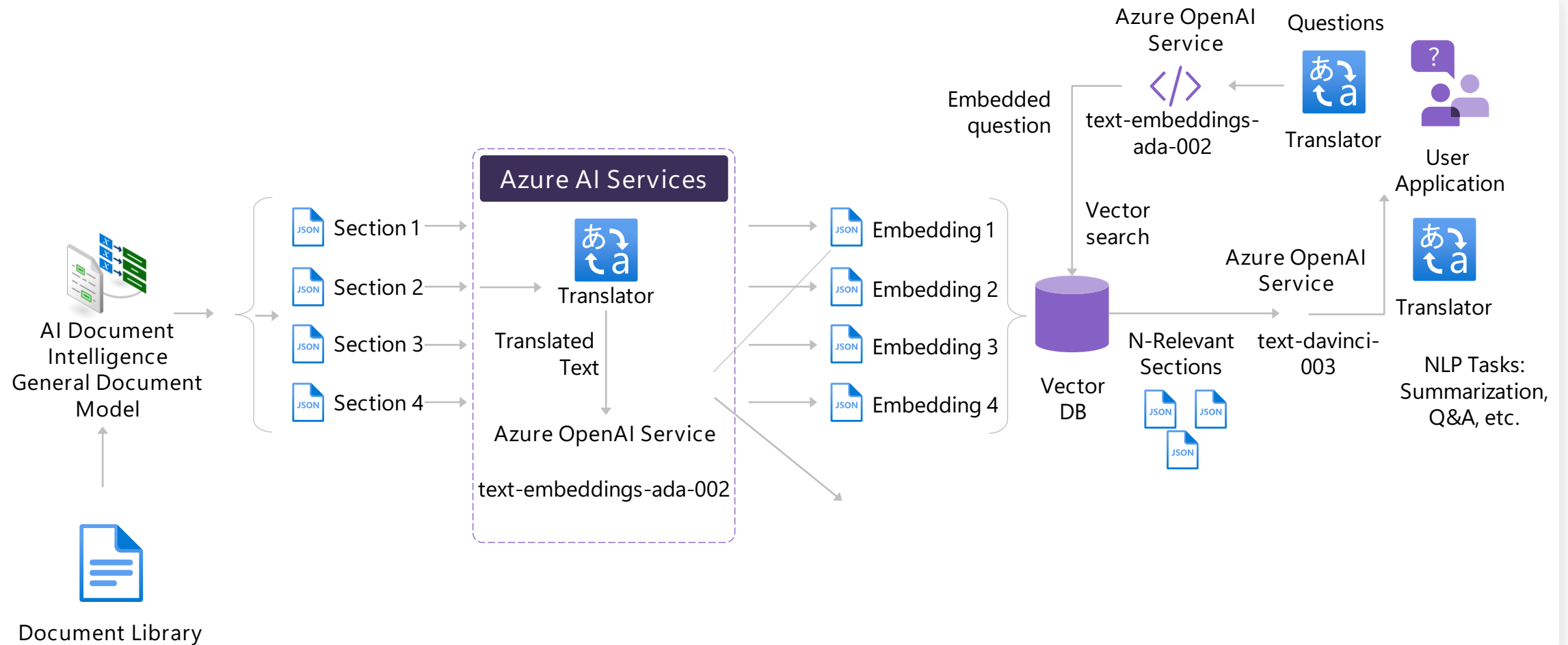
OpenAI Embeddings

- Dense representation of semantic meaning of a piece of text
  - Allows to compare how similar two pieces of text are
  - Same idea as word2vec and others, but significantly better at semantic capturing

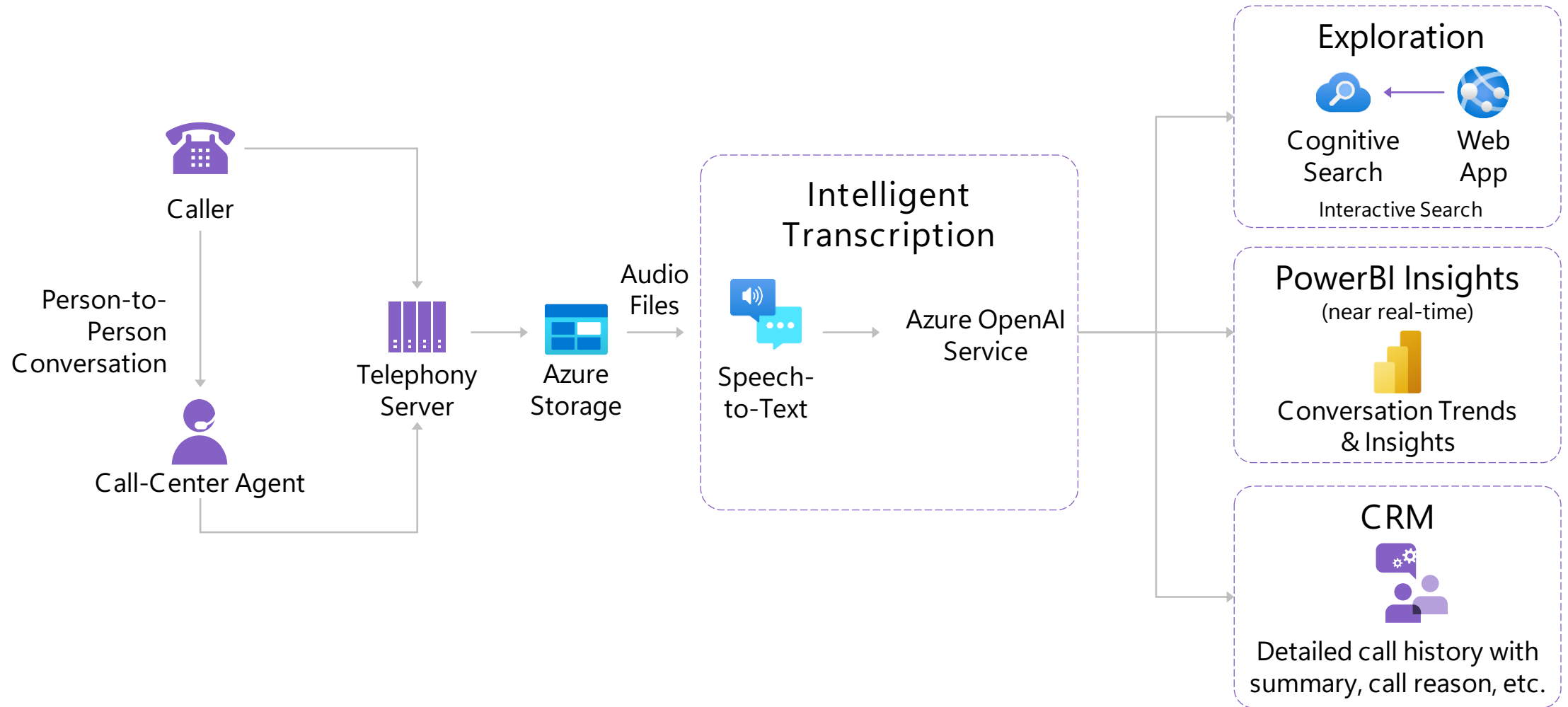- A concept to build ChatGPT-like experiences on private data

Document Embedding with Translation
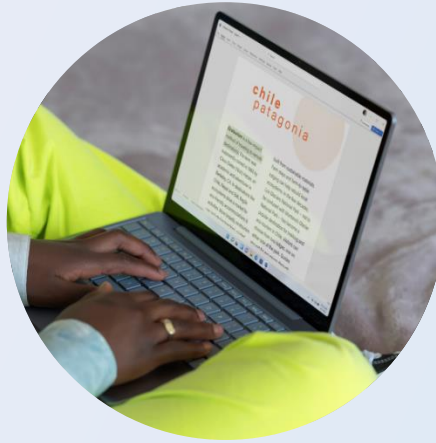
Contact Center Analytics

Top 3 Azure OpenAI Use Cases

Virtual Assistant

Index knowledge base and give generative answers to arbitrary questions
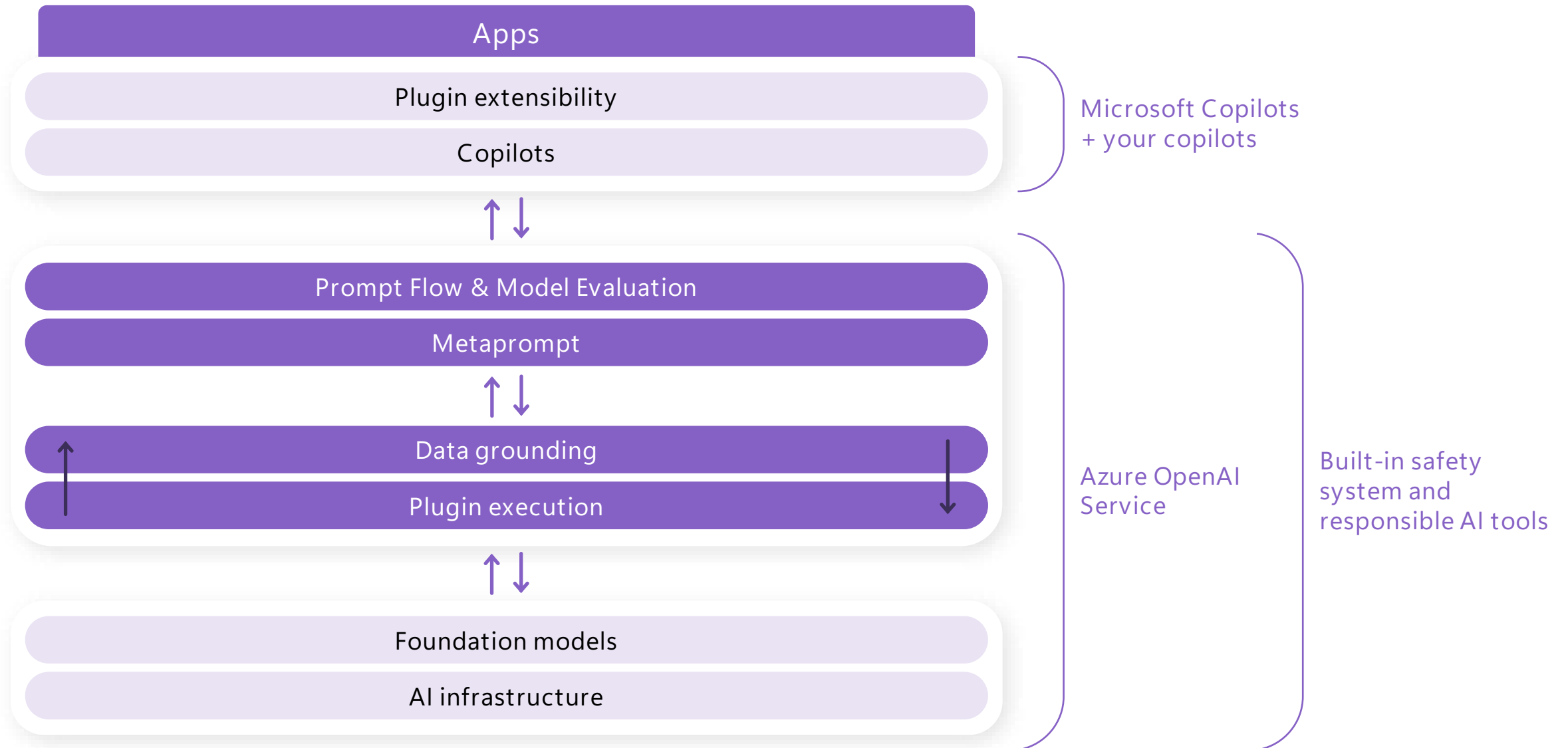

Document Intelligence

Information extraction, classification, summarization

Extract complex entities from documents and their relationship

Contact Center

Summarization, information extraction from call center calls and chat conversations

Copilot stack

Apps

Plugin extensibility

Copilots

Microsoft Copilots
+ your copilots

Prompt Flow & Model Evaluation

Metaprompt

Data grounding

Plugin execution

Azure OpenAI
Service

Foundation models

AI infrastructure

Built-in safety
system and
responsible AI tools

Microsoft Azure Cloud
Runs on trust

Your data is <u>your</u> data

Data is stored encrypted in your Azure subscription

Your data from any fine-tuning is <u>not</u> used to train the foundation AI models

Azure OpenAI Service provisioned in your Azure subscription

Model fine tuning stays in your Azure subscription and never moves into the foundation AI models

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Your data is <u>protected</u> by the most comprehensive enterprise compliance and security controls

Encrypted with Customer Managed Keys

Private Virtual Networks, Role Based Access Control

Soc2, ISO, HIPPA, CSA STAR Compliant

Thank you

Sophia Cullen
Partner Solution Architect AI

Created using Dall-E 3 (Prompt: „a person presenting their AI solution with a group of people backing them up. There are many people in the audience totally interested in what is being presented ")