



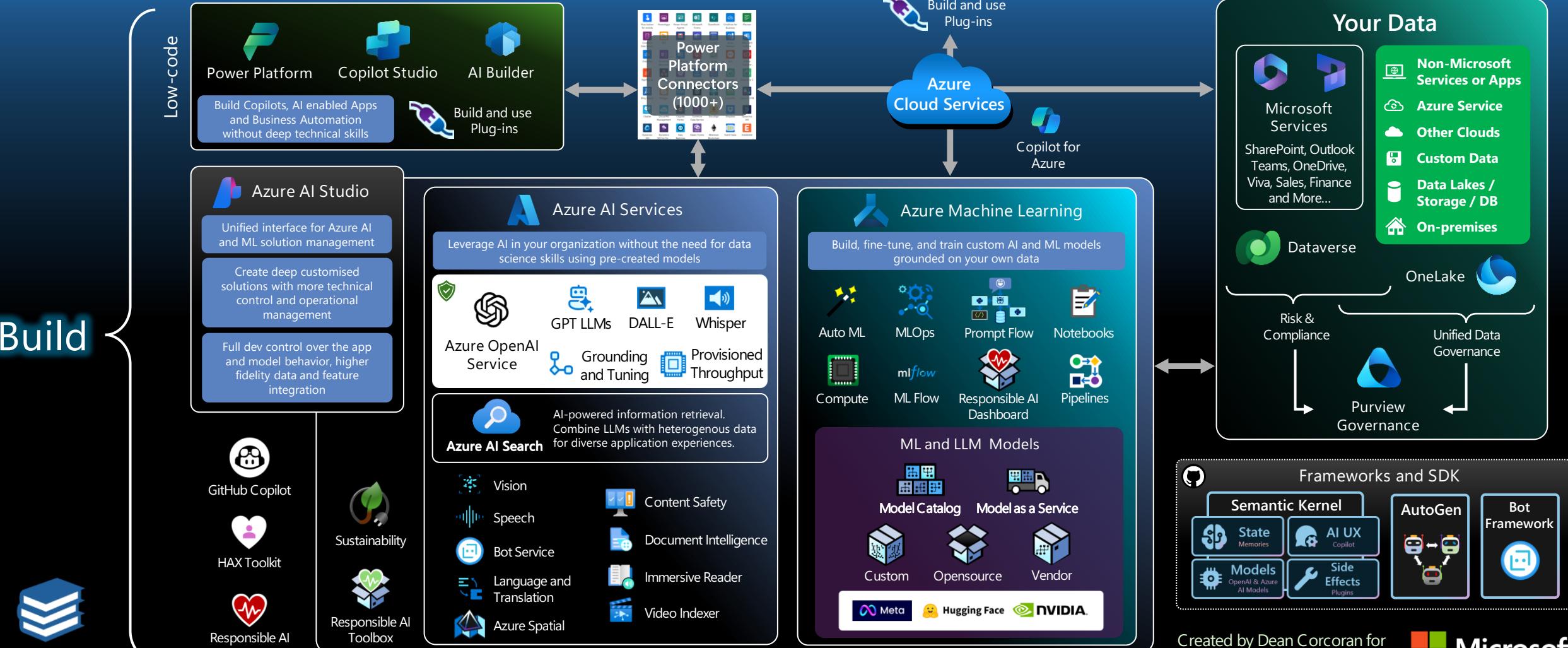
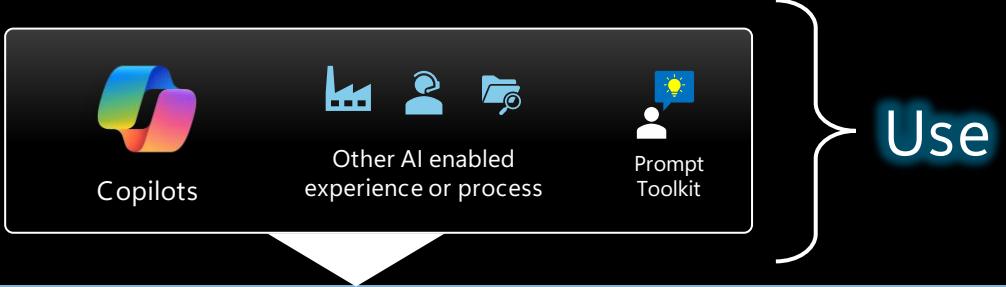
# Azure OpenAI

## GPT-4 Turbo with Vision Demos and examples

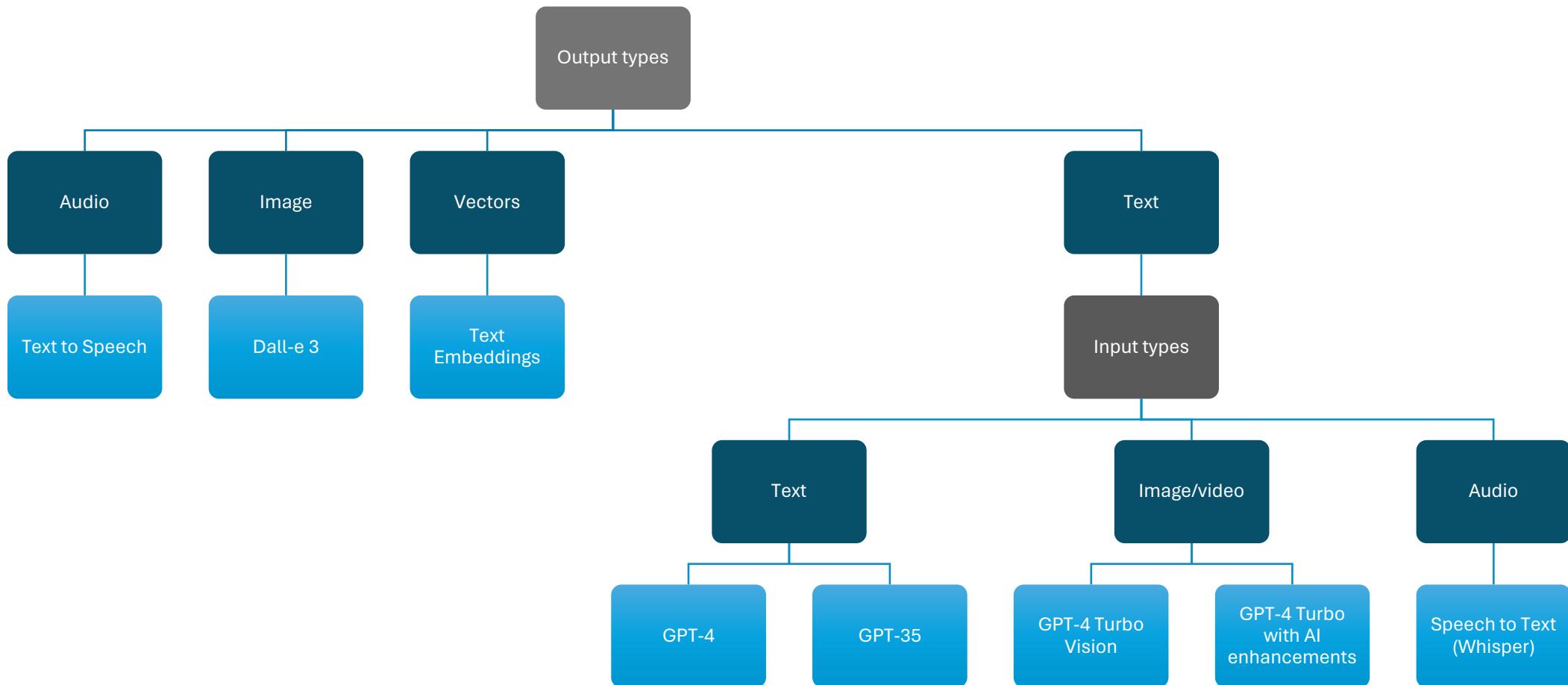
Serge Retkowsky | [serge.retkowsky@microsoft.com](mailto:serge.retkowsky@microsoft.com)

# Microsoft AI Ecosystem

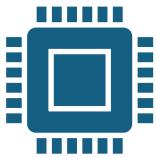
A certain incomplete conceptual view of AI services and resources to utilize and build AI technology into organizations to achieve more with less.



# Models



# Dec 2023: GPT-4 Turbo with Vision is now available



**GPT-4 Turbo with Vision** is a large multimodal model (LMM) developed by OpenAI that can analyze images and provide textual responses to questions about them. It incorporates both natural language processing and visual understanding.

Explore the capabilities of GPT-4 Turbo with Vision in a **no-code experience** using the [Azure Open AI Playground](#).

**Vision enhancement** using GPT-4 Turbo with Vision is now available in the [Azure Open AI Playground](#) and includes support for **Optical Character Recognition, object grounding, image support** for "add your data," and support for video prompt.

# Demo 1

Use of GPT-4 Turbo Vision with Azure OpenAI Studio

# GPT-4 Turbo with Vision using Azure OpenAI

Azure AI Studio > Chat playground

## Chat playground

Deploy to

Import setup Export setup Show panels

Privacy & cookies

### Assistant setup

System message  Add your data (preview)

**Specify how the chat should act**

Use a template to get started, or just start writing your own system message below. Want some tips? [Learn more](#)

**Use a system message template**

Select a template

**System message** ⓘ

You are an AI assistant that helps people find information.

**Examples** ⓘ

+ Add an example

### Chat session

Clear chat Playground Settings View code Show raw JSON

The chat playground can now see, hear, and speak. Select the microphone in the chat window and start speaking to prompt the model without manually entering text. You can also hear the model's output by selecting the speaker icon.

Type user query here. (Shift + Enter for new line)

### Configuration

Deployment Parameters

**Deployment \*** gpt-4TurboVision

**Enhancements**

Vision Azure AI Services

**Session settings**

Past messages included 10

Current token count ⓘ

Input tokens progress indicator  
11/128000

# GPT-4 Turbo with Vision using Azure OpenAI Studio (no code experience)

*Demo video*

- Demo video:

<https://www.youtube.com/watch?v=MFBKgWhqlCk>



# GPT-4 Turbo with Vision using Azure OpenAI (Python SDK)

*Demo video*

- Python notebook:

<https://github.com/retkowsky/Azure-OpenAI-demos/tree/main/Images%20comparison>

- Demo video:

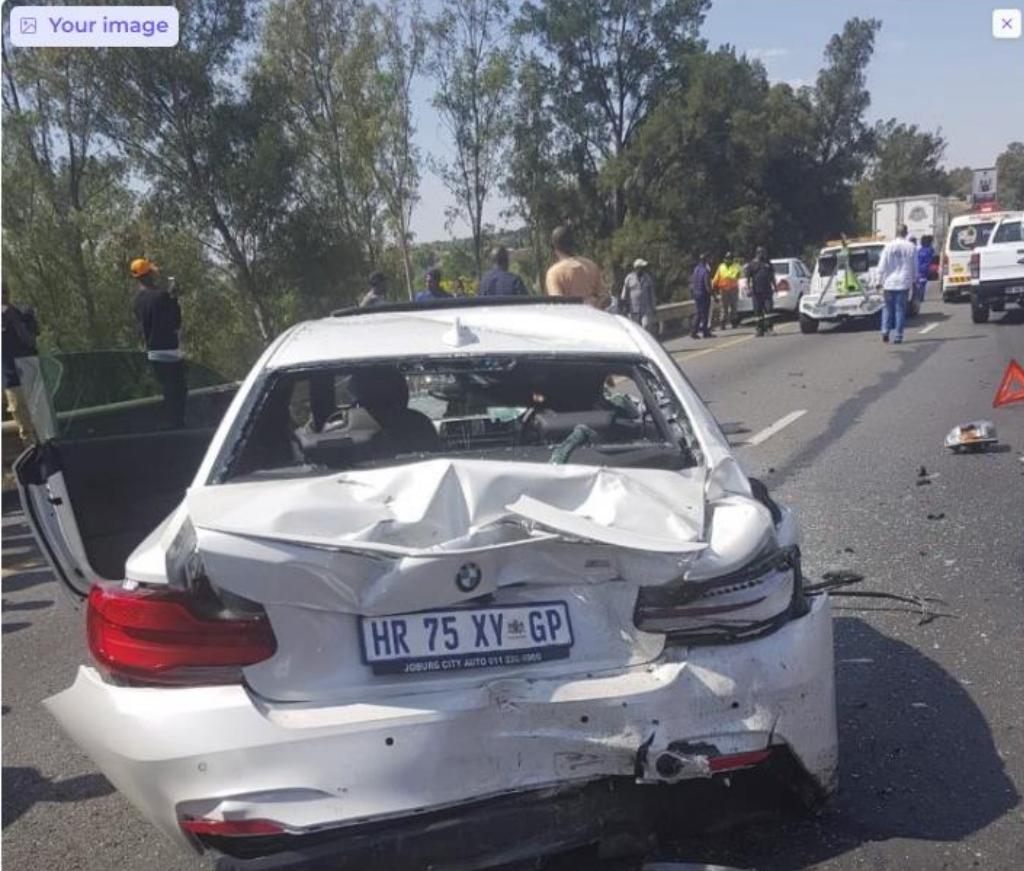
<https://youtu.be/f5kbw-6fAKo>



# Demo 2

Car damage copilot with Azure OpenAI (GPT-4 Turbo with Vision)

# Car damage copilot with Azure OpenAI (GPT-4 Turbo with Vision)



Your image

Car damage analysis

- Summary: The vehicle has sustained significant rear-end damage, with the trunk area crumpled and the rear bumper detached.
- Brand/model: The vehicle is a BMW, but the specific model cannot be determined from this image.
- Color: The vehicle is white.
- Licence plate: The licence plate number is HR 75 XY GP.
- Damage: Yes, there is damage to the vehicle.
- Damage information and location: The damage includes a crumpled trunk area, a detached rear bumper, and possible damage to the rear lights and exhaust system. Debris is scattered on the road, indicating a high-impact collision.
- Damage location: The damage is located at the 'REAR' of the vehicle.
- Confidence level: The confidence level of this damage classification is high, as the damage is clearly visible and concentrated at the rear end of the car.
- Hashtags and emojis: #CarCrash #RearEndDamage #BMW #AutoInsurance 🚗💥🛠️

Flag

# Car damage copilot with Azure OpenAI (GPT-4 Turbo with Vision)

*Demo video*

- Python notebook:

[https://github.com/retkowsky/Azure-OpenAI-demos/tree/main/Car damage copilot/](https://github.com/retkowsky/Azure-OpenAI-demos/tree/main/Car%20damage%20copilot/)

- Demo video:

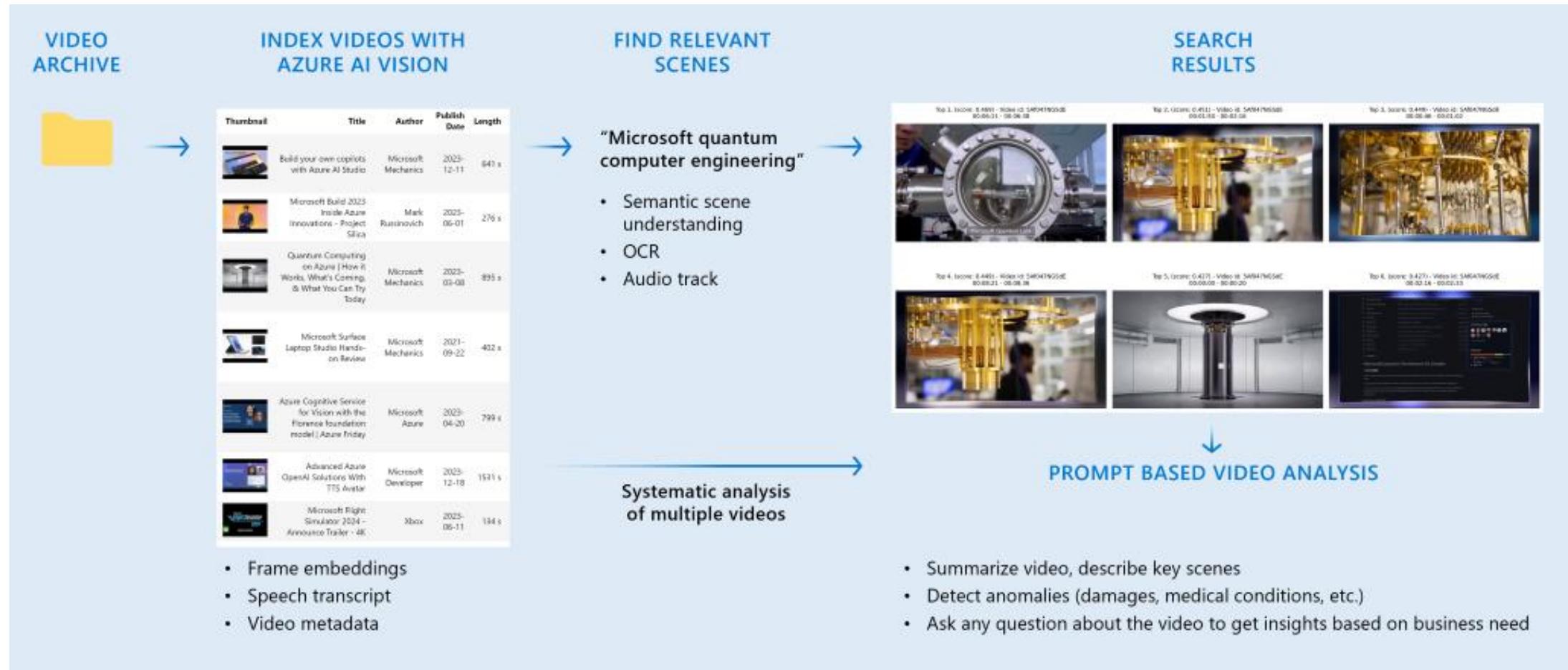
<https://youtu.be/KWurl4sJ73I>



## Demo 3

Chat with your own video using GPT-4 Turbo Vision & Video Retrieval API

# Chat with your own video using GPT-4 Turbo Vision & Video Retrieval API



# Chat with your own video using GPT-4 Turbo Vision & Video Retrieval API

*Demo video*

- Python notebook:

[https://github.com/retkowsky/Azure-OpenAI-demos/tree/main/Chat with your own videos/](https://github.com/retkowsky/Azure-OpenAI-demos/tree/main/Chat%20with%20your%20own%20videos/)

- Demo video:

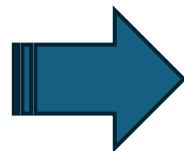
<https://youtu.be/Lk3GWbucEL0>



# Demo 4

Video to document checklist using GPT-4 Turbo Vision & Video Retrieval API

# Video to document checklist using GPT-4 Turbo Vision & Video Retrieval API



```
questions = [
    "Provide a checklist from the described steps from the video in a dataframe structure with the step name,\n    the description, the starting timestamp and the ending timestamp",
]

for question in questions:
    display(Markdown(f"**{question}**"))
    response = video_chat(video_url=video_url, document_id=top_match_id, user_prompt=question)
    display(Markdown(response))
```

Provide a checklist from the described steps from the video in a dataframe structure with the step name, the description, the starting timestamp and the ending timestamp

Based on the transcript provided, here is the checklist in a dataframe structure:

Step Name	Description	Starting Timestamp	Ending Timestamp
Sign In	Confirmation of patient identity, procedure, and consent	00:00:54	00:01:12
Anesthesia Safety Check	Verification of anesthesia machine and medication check completion	00:01:12	00:01:30
Patient Allergy Check	Confirmation of any patient allergies	00:01:30	00:01:30
Airway and Risk Assessment	Assessment of difficult airway and aspiration risk	00:01:30	00:01:30
Blood Loss Anticipation	Estimation of anticipated blood loss	00:01:30	00:01:30
Time Out	Team introductions and confirmation of patient name, procedure, and surgical site	00:02:07	00:02:17
Surgical Safety Checks	Confirmation of critical steps, equipment availability, and specific concerns	00:02:17	00:02:50
Sign Out	Verification of procedure name, counts, specimen labeling, and equipment issues	00:02:59	00:03:14

Please note that the timestamps are approximate and based on the transcript provided. The descriptions are brief summaries of the actions taken during each step.

# Video to document checklist using GPT-4 Turbo Vision & Video Retrieval API

*Demo video*

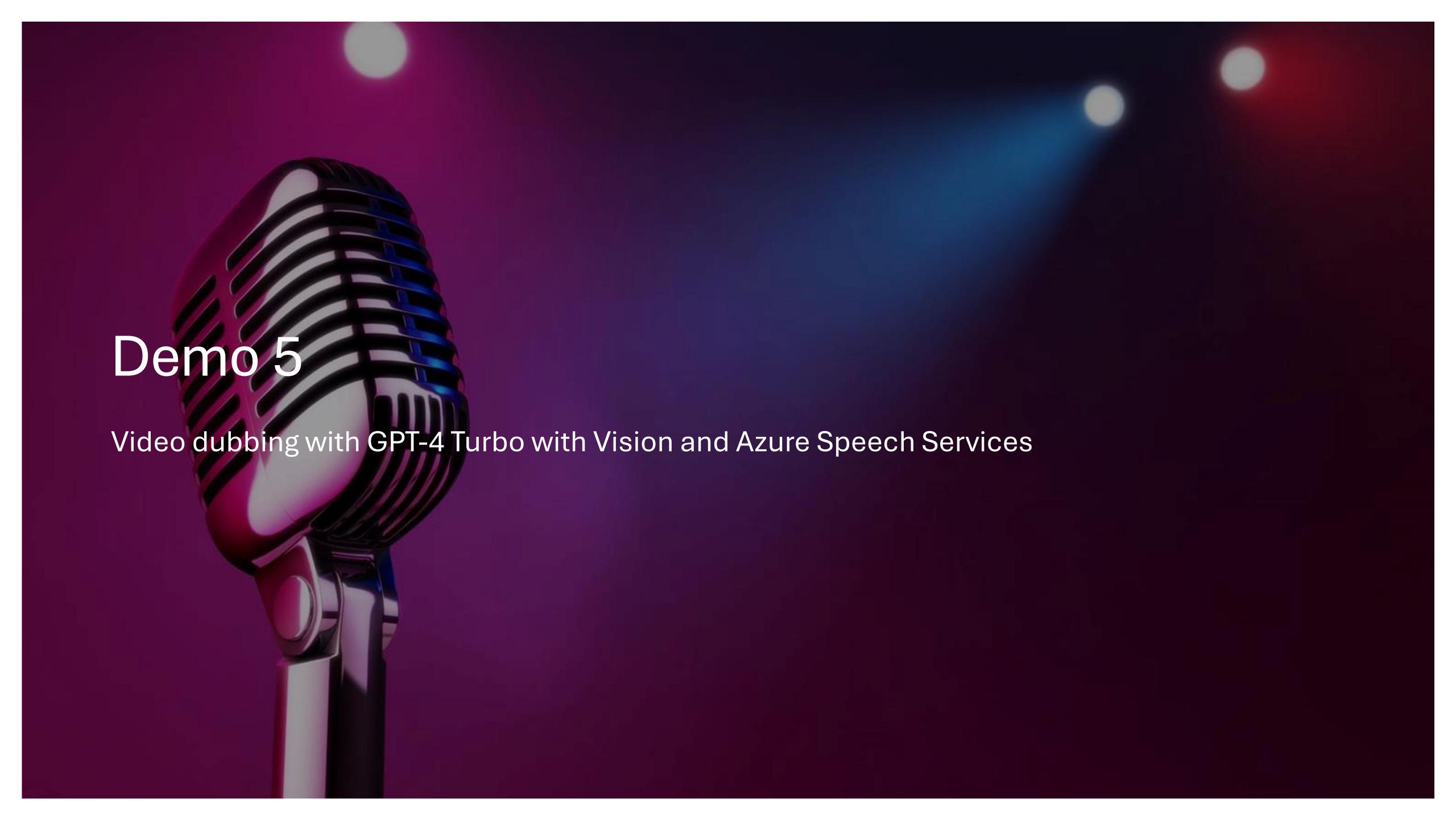
- Python notebook:

[https://github.com/retkowsky/Azure-OpenAI-demos/tree/main/Video to document/](https://github.com/retkowsky/Azure-OpenAI-demos/tree/main/Video%20to%20document/)

- Demo video:

<https://youtu.be/JmTkj2xXaFE>



A vintage-style microphone with a shiny, metallic finish and a black mesh grille is positioned on the left side of the frame. It sits on a silver microphone stand. The background is dark, suggesting a stage or studio environment, with blurred lights in shades of blue, red, and white visible in the upper right corner.

# Demo 5

Video dubbing with GPT-4 Turbo with Vision and Azure Speech Services

# Video dubbing using GPT-4 Turbo with Vision and Azure Speech Services



# Video dubbing using GPT-4 Turbo with Vision and Azure Speech Services

*Demo video*

- Python notebook:

<https://github.com/retkowsky/Azure-OpenAI-demos/tree/main/Video%20dubbing/>

- Demo video:

<https://youtu.be/ovdxWqciKWQ>



Azure OpenAI GPT-4 Turbo Vision demos

serge retkowsky

Publique

6 vidéos · Aucune vue · Mise à jour aujourd'hui

Tout lire    Aléatoire

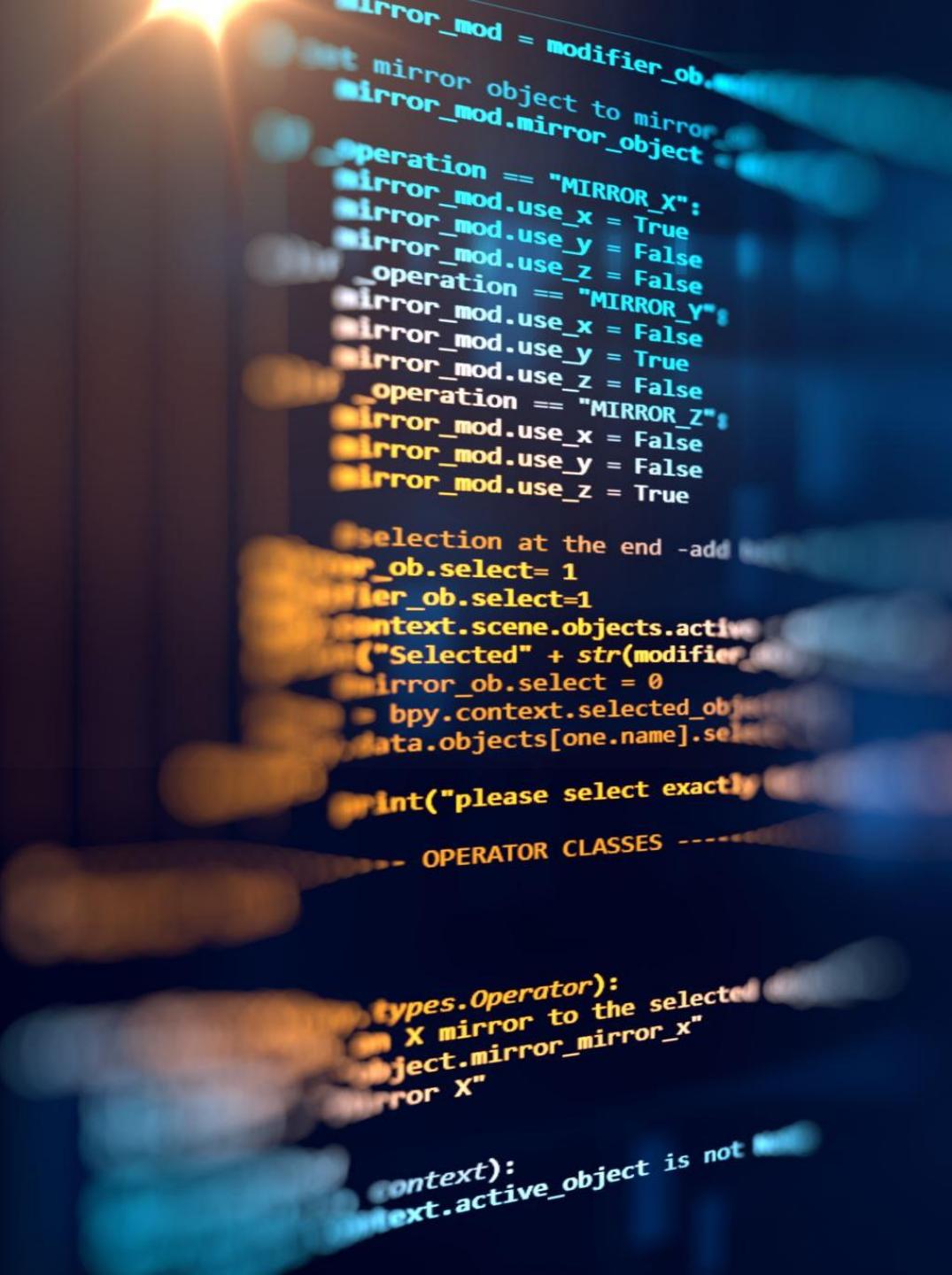
- Trier
- 
- Azure OpenAI GPT4 Turbo Vision Studio  
serge retkowsky · 2 vues · il y a 10 minutes  
4:08
- Azure OpenAI GPT4 Turbo Vision Python  
serge retkowsky · Aucune vue · il y a 9 minutes  
2:14
- Azure OpenAI GPT4 Turbo Vision Car damage detection  
serge retkowsky · 1 vue · il y a 10 minutes  
3:27
- Azure OpenAI GPT4 Turbo Vision Chat with you  
serge retkowsky · 1 vue · il y a 10 minutes  
2:26
- Azure OpenAI GPT4 Turbo Vision Video checklist  
serge retkowsky · 2 vues · il y a 11 minutes  
1:14
- Azure OpenAI GPT4 Turbo Vision Video dubbin  
serge retkowsky · Aucune vue · il y a 5 minutes  
2:30

# Azure OpenAI GPT-4 Turbo Vision demos notebooks

<https://www.youtube.com/playlist?list=PL4D3Ck8h8PgneHo44FqaZ074pp-fGPX4I>

A blurred background image of a workspace. In the foreground, there's a white keyboard, a pair of dark-rimmed glasses resting on it, and a black pen lying next to it. Behind these items, a white laptop is open, showing a blue screen. To the left of the laptop, a white mug with a dark handle sits on the desk. The background is out of focus, showing what appears to be a window with greenery outside and some office equipment or furniture.

Documentation



# Documentation

- GPT-4 Turbo Vision concepts:
  - <https://learn.microsoft.com/en-us/azure/ai-services/openai/concepts/gpt-with-vision>
- Video retrieval API:
  - <https://learn.microsoft.com/en-us/azure/ai-services/computer-vision/how-to/video-retrieval>
  - <https://learn.microsoft.com/en-us/azure/ai-services/computer-vision/reference-video-search>
- QuickStart:
  - <https://learn.microsoft.com/en-us/azure/ai-services/openai/gpt-v-quickstart?tabs=image%2Ccommand-line&pivots=programming-language-python>
- GPT-4 Turbo Vision pricing:
  - <https://learn.microsoft.com/en-us/azure/ai-services/openai/concepts/gpt-with-vision#special-pricing-information>
- GPT-4 Vision system card:
  - [GPT-4V\(ision\) system card \(openai.com\)](#)

# Demos GitHub repository

- Azure OpenAI demos:

<https://aka.ms/azure-openai-demos>

- Gen CV:

<https://github.com/Azure/gen-cv>



# Azure OpenAI Service

Build your own copilot and generative AI applications



Connect your own data, call functions, and improve workflow with language and image models

Try Azure for free

Apply for access



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If you still does not have Azure OpenAI access, apply now :  
<https://aka.ms/oai/access>



Thank you