VISUA vs Microsoft Azure

How does VISUA's Visual-AI/Computer Vision stack compare to the Microsoft Azure API?
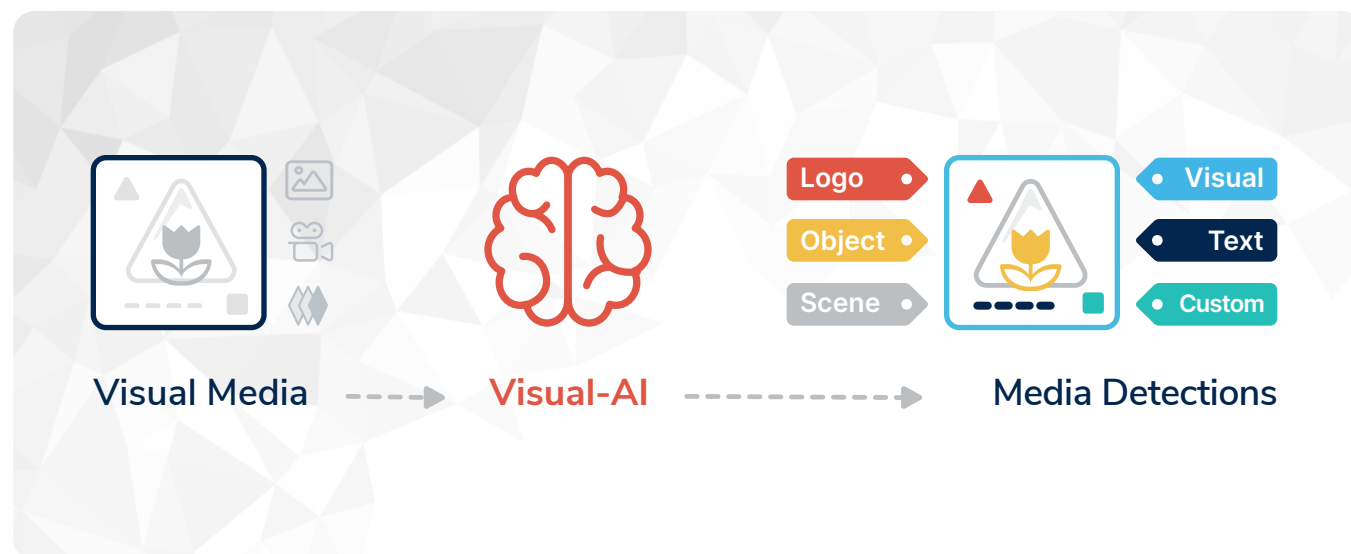
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Researching computer vision API providers can be quite a mammoth task. The first thing many people do is look to compare the various offerings from household names like Amazon, Google and Microsoft. Then they start widening their search looking for other providers that might also meet their needs.

We created this series of comparison documents to help you determine which solution will best meet your requirements. Having already examined **Amazon Rekognition** and **Google Cloud Vision**, we turn to Microsoft Azure's Computer Vision technology and look at how it compares to VISUA's API.

Here, we will examine the most asked about features, comparing the key points of interest to save you some time.

Visual Media ----▶ **Visual-AI** -----------▶ **Media Detections**

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What is Microsoft Azure's Computer Vision Application?

Microsoft Azure, previously known as Windows Azure, is Microsoft's public cloud computing platform. Like Google Cloud, it provides a range of services including storage, analytics, virtual machines and a range of AI models under their cognitive services. Users can choose from these services to develop new applications or run existing applications through the Azure cloud.

1. Infrastructure as a Service (IaaS)
2. Platform as a Service (PaaS)
3. Software as a Service (SaaS)
4. Serverless

Their Artificial Intelligence APIs allow for personalised content production, content moderation, text analysis, translation and Q&A development among other things. But you're here to learn about their computer vision application. **According to the company's website**, Azure's vision cognitive service enables the ability to analyze content in videos and images. This allows for the recognition of custom images, such as logos and marks, and the detection and identification of people and emotions in images and video. They work with clients such as Pic Collage and Prism Skylabs.

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What is VISUA?

VISUA, formerly known as LogoGrab, offers a powerful Visual-AI API that is currently being used by the world's leading cyber security, brand protection, authentication and monitoring companies.

It's an entirely scalable API that can be used for a growing number of purposes including social listening, sports sponsorship monitoring and phishing detection to name a few.

VISUA doesn't just offer an API. They provide support from the first point of contact and work to deliver precise solutions for every client, whatever their requirements with a goal to maximise efficiency and minimise costs.

Although their API can detect the presence of people, in the early days, VISUA made the decision to avoid incorporating technologies that could personally identify individuals in visual media.

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Comparative Features & Offerings At-A-Glance

Feature	Microsoft Azure Computer Vision API	VISUA
Logo Detection	✔	✔
Add Logos/Marks To Library	✘	✔
Instant Logo Learning	✘	✔
Logo Library Size	FIXED	Unlimited
Object Detection	✔	✔
Scene Detection	✔	✔
Custom Object Detection	✔	✔
Visual Search	**Migrating to Bing platform in 2024** ✔	✔
Image Classification (Predefined)	✔	✔
Image Classification (Custom)	✔	✔
Text Detection (Print)	✔	✔
Text Detection (Handwriting)	✔	✔
Content Moderation	✔	✔
PPE Detection	✔	✔
Face Detection	✔	✘
Sentiment Detection (face)	✔	✘
Face Comparison	✔	✘
Face Search	✘	✘

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VISUA

Feature	Microsoft Azure Computer Vision API	VISUA
Image Processing/Analysis	✔	✔
Video Processing/Analysis	✔	✔
Real-Time Processing	✔	✔
Project Implementation Support	By Third-Parties	By VISUA
Custom Projects/Applications Support	By Third-Parties	By VISUA
Deployment In The Cloud	✔	✔
Deployment On-Premise	✘	✔
Deployment On-Device	✘	✔
Batched Media Processing	✔	✔
Batched Task Processing	✘	✔
Freely Accessible API for Testing	✔	✘
Usage Model	Monthly Subscription	Contract

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Features & Offerings Detail

VISUA and the Microsoft Azure Computer Vision application have similar features with some key differences. These differences could be the very thing that determines which one you choose.

VISUA's API delivers a number of technologies, namely Logo and Mark Detection, Object and Scene Detection, Visual Search and Hologram Authentication. These can help to enhance counterfeit detection, brand monitoring, cybersecurity, copyright compliance and more. Microsoft Azure's Computer Vision AI service also enables these technologies, however, they gear their speciality more towards the retail and office industries with spatial analysis capabilities and digital asset management.

VISUA's instant logo learning capability means that out of the two APIs, theirs is the only one that allows users to add new logos, marks, and other unique graphics to the library. This allows for a more customised experience.

Both APIs currently enable Visual Search, however, it is noted on the Microsoft Azure website that it will only be available through their application until 2024. Subsequently, it will move to Microsoft's Bing service. As highlighted before, VISUA made the decision to avoid making its API available for the purposes of personal identification. This, however, is something that Microsoft Azure's API does enable and it can even provide the capability to detect emotion.

It is worth noting that both seem capable of applying their technology to a wide range of potential use cases that are not listed on their websites.

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VISUA vs Amazon Rekognition: Data Processing

Before you decide which computer vision application to go for, you'll need to compare the data processing attributes. This is often a key deciding factor for organizations looking to add Visual-AI to their tech stack.

Speed

Both VISUA and Microsoft's computer vision applications boast fast turnaround times in their data processing. They can also process video in real-time, which is ideal for those wishing to analyse live footage for sports sponsorship ROI analysis. With that said, it has been noted that many VISUA customers have found the speed and simplicity of VISUA's training and model management as a key deciding factor for them when testing different API providers.

Batched Media & Task Processing Support

Batch processing allows users to process multiple media files in one single API call, making a big difference to the simplicity of workflows. Many businesses require the capability to batch process images and video with an API. The good news is that both Microsoft's Computer Vision application and VISUA provide this capacity.

Batch Task Processing, on the other hand, allows multiple tasks to be completed under one request. For example, an API user might want to identify brands, objects and image context in a video and convert any text found into machine-readable text. This is something VISUA can do, however on analysing all available documentation on the Azure Computer Vision application, it would appear that Microsoft's offering can not batch multiple tasks into a single request.

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Media Formats

Both VISUA and Microsoft Azure accept most raster image file formats (e.g. .png, .jpg, .gif, .tif, .bmp). VISUA will accept SVG file types, and they can also offer custom pre-processing for other vector formats as well as PDF and web page formats. Currently, Microsoft Azure Computer Vision does not accept SVG and cannot integrate PDFs or web page formats. They also do not, at this time, provide a custom pre-processing service. If you choose to work with Azure Computer Vision and need to analyse SVG files or PDFs, you should note that someone on your team will need to be tasked with rasterizing the files before uploading them. For this reason, VISUA stands out here.

Both support video in all file formats, including real-time video. They both also accept a wide variety of file sizes, resolutions and frame rates.

Deployment

Deployment is often a key decision factor for those looking for a Visual-AI API. While both VISUA and Azure offer cloud deployment, only VISUA allows users to choose an alternative deployment option. Their "Deploy-Anywhere" approach means computer vision can be made available to a broader range of applications than would otherwise be possible.
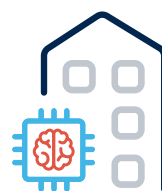
The four deployment options available with VISUA are as follows:
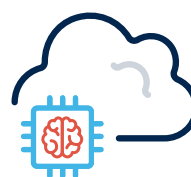
Cloud SaaS
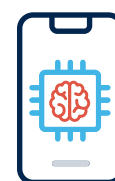
On-Device

On-Premise

Hybrid

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In the Cloud ☁

Object Library (reference logos and media) stored in the cloud, with detections initiated through a simple API

On-Premise 🏢

VISUA installs relevant parts of their Visual-AI stack onto in-house infrastructure. This means all reference media is kept in local storage and detections are processed on the local hardware.

On-Device 📱

VISUA's On-Device deployment allows users to store reference files and conduct detections on user-approved devices in the field without any requirement for wireless connectivity.

Hybrid ⊞

A combination of the above where a client might want to run some aspects of their implementation on-premise and others in the cloud, or a combination of cloud and on-device.

This variety of options means that customers can choose the deployment format that best suits their requirements. For example, some organizations such as those that deal in healthcare may, in accordance with privacy policies, be unable to use third-party cloud-based software to analyze private data. With the ability to host on-premise, they can keep all necessary data local without fear of breaching internal regulations. This is not something that can be achieved with a cloud-only offering.

Developments and improvements

VISUA is a market-led business that focuses solely on computer vision and responds to the changing needs of its target industries. Consequently, the team is continuously working to add new features refining VISUA's offering to adapt to the growing demands of current and prospective customers. In 2021, VISUA introduced their deploy-anywhere capabilities, as well as adding the ability to support phishing detection. Similarly, they are consistently updating their existing technologies, such as improving processing times and refining OCR abilities.

Microsoft also regularly update their Computer Vision application, focusing on improving existing technologies. For example in 2021 they have made significant improvements to their spatial awareness containers and to the languages available in OCR/text detection.

Implementation and Support

With a Microsoft Azure account, users can avail of Cognitive Services for free for 12 months. It should be noted, however, that this is limited to 5000 transactions on their Computer Vision application, but it does allow for a quite generous 30,000 free transactions of their facial recognition application under the Machine and AI platform.

In relation to implementation, like Amazon Rekognition and Google Cloud Vision, this rests entirely with the client company's team or a third party. There is a great deal of documentation available. Support is also available for free to all users in regards to product crashes and dev environment issues that pertain only to the functioning of Microsoft's software and not to the work you are doing, i.e. implementing Azure into your application. Technical support is not available to customers on free plans. It is available within a support package which is priced between $29 a month and $1000 a month, depending on your requirements.

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VISUA has a consultative approach to both implementation and support. Their team is available to support you in deciding how their Visual-AI API can meet your business needs. They will work alongside your team on setup and implementation and will continue to provide ongoing support and consultation, ensuring that the API scales with your business. With VISUA you will know the names of the people who are working on your project and will enjoy a much more personalized and personal experience. It will feel almost like VISUA developers and engineers are actually part of your team.

Conclusion

Both providers have an outstanding offering and heritage in this space, however, when the details above are considered, it is quite clear that they each have the potential to play a role in different business situations. If you are looking for facial recognition or emotion detection, for example, as this is not something VISUA can provide, you will of course opt for Microsoft Azure's Cognitive Services. However, VISUA becomes the smart choice where:

- You do not have the in-house expertise nor the desire to work with a third party on your computer vision project, VISUA is the smartest option as they can provide hands-on, person-to-person implementation, scaling the API to suit your business's precise requirements. The fact that you do not have to pay any extra for personalized support with VISUA is also a vote in their favour for anyone who wants to have a personable experience with their API provider. There is undeniable value in knowing that you can rely on a dedicated team to provide ongoing support as you adapt the technology to your existing tech stack.

- You need on-premise or on-device deployment

- You need instant logo learning and the ability to add new logos to the library

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Test Today

Whichever API you think might be a good fit, be sure to test all available solutions before you make a final decision. Ultimately, the best solution is the one that gives the best and most accurate results in your application. To run a test of these technologies, fill in the form below and a VISUA team member will contact you. To test Microsoft Azure's Computer Vision Application you will need to create an Azure account and set up for cognitive services before getting started. Visit their website for more on this.

sales@visua.com

Or find out more at VISUA.COM

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