

ANKIT SHARMA PRESENTS

---

# Create Smart Angular app Using Azure Computer Vision

---



Ankit Sharma

- SDE III at Cisco Systems, India
- Author & Speaker
- GDE for Angular, Microsoft MVP
- Blog <https://ankitsharmablogs.com/>



@ankitsharma\_007

# Computer Vision

- An AI service that analyses content in images and video.
- Easy to integrate to your app with a simple API call.
- Run in the cloud or on-premises with containers.



# Computer Vision

- Provides three APIs
  - Optical Character Recognition (OCR)
  - Image Analysis
  - Spatial Analysis



# OCR API

- The Optical Character Recognition (OCR) service extracts text from images.
- It uses deep-learning-based models and works with text on a variety of surfaces and backgrounds.



# OCR API

## Image requirements

- Format - JPEG, PNG, BMP, PDF, or TIFF.
- Dimensions - between 50 x 50 and 10000 x 10000 pixels.
- File size - must be less than 50 MB (6 MB for the free tier)



# Image Analysis API

- The Image Analysis service extracts many visual features from image.
- It can determine whether an image contains adult content, find specific brands or objects, or find human faces.
- You can analyze images to provide insights about their visual features and characteristics.



# Image Analysis API

## Image requirements

- Format - JPEG, PNG, GIF, or BMP.
- Dimensions – greater than 50 x 50 pixels.
- File size - must be less than 4 MB.



# Spatial Analysis

- We can use the Spatial Analysis service to ingest streaming video from cameras, extract insights, and generate events to be used by other systems.
- The service detects the presence and movements of people in video.



# What Spatial Analysis does?

- Spatial Analysis ingests video then detects people in the video.
- After people are detected, the system tracks the people as they move around over time then generates events as people interact with regions of interest.



# Prerequisites

- Install the Visual Studio 2022 with the ASP.NET and web development workload.
- An Azure subscription account. You can create a free Azure subscription account at <https://azure.microsoft.com/>



# External Packages

```
Install-Package Microsoft.Azure.CognitiveServices.Vision.ComputerVision
```

- This library provides access to the Microsoft Cognitive Services ComputerVision APIs.



# Demo Time !!!



in/ankitsharma-007



@ankitsharma\_007

# Resources

- GitHub - [bit.ly/smart-angular-app](https://bit.ly/smart-angular-app)
- Personal blog - <https://ankitsharmablogs.com>

