

**Create Computer Vision Solutions with Azure AI Vision Training (AI-3004)**

**Course Number:** MOC-AI-3004
**Duration:** 1 day

**Overview**

Computer vision is an area of artificial intelligence that deals with visual perception. This official Microsoft course (AI-3004), Create Computer Vision Solutions with Azure AI Vision Training, teaches attendees how to leverage Azure AI Vision's multiple services to support common computer vision scenarios.

**Prerequisites**

* Familiarity with Azure and the Azure portal
* Experience programming with C# or Python

**Materials**

All Microsoft Azure AI training students receive Microsoft official courseware.

For all Microsoft Official Courses taught in their entirety that have a corresponding certification exam, an exam voucher is included for each participant.

**Software Needed on Each Student PC**

Attendees will not need to install any software on their computers for this class. The class will be conducted in a remote environment that Accelebrate will provide; students will only need a local computer with a web browser and a stable Internet connection. Any recent version of Microsoft Edge, Mozilla Firefox, or Google Chrome will work well.

**Objectives**

* Use pre-trained models to analyze images and extract insights and information
* Classify images by training a custom model with Azure AI Vision
* Explore detecting human faces, analyzing facial features and emotions, and identifying individuals
* Use the Image Analysis API for optical character recognition (OCR)
* Extract insights from video, including face identification, text recognition, object labels, scene segmentations, and more

**Outline**

* Introduction
* Analyze Images
	+ Provision an Azure AI Vision resource
	+ Analyze an image
	+ Generate a smart-cropped thumbnail and remove background
	+ Analyze images with Azure AI Vision
* Image Classification with Custom Azure AI Vision Models
	+ Understand custom model types
	+ Create a custom project
	+ Label and train a custom model
	+ Classify images with an Azure AI Vision custom model
* Detect, Analyze, and Recognize Faces
	+ Identify options for face detection analysis and identification
	+ Understand considerations for face analysis
	+ Detect faces with the Azure AI Vision service
	+ Understand capabilities of the face service
	+ Compare and match detected faces
	+ Implement facial recognition
	+ Detect, analyze, and identify faces
* Read Text in Images and Documents with the Azure AI Vision Service
	+ Explore Azure AI Vision options for reading text
	+ Use the Read API
	+ Read text in images
* Analyze Video
	+ Understand Azure Video Indexer capabilities
	+ Extract custom insights
	+ Use Video Analyzer widgets and APIs
	+ Analyze video
* Conclusion