

## AI-3004: Create computer vision solutions with Azure AI Vision

### Course Details

**Course Code:** AI-3004

**Duration:** 1 day

#### Notes:

- This course syllabus should be used to determine whether the course is appropriate for the students, based on their current skills and technical training needs.
- Course content, prices, and availability are subject to change without notice.
- Terms and Conditions apply

*Elements of this syllabus are subject to change.*

#### About this course

Computer vision is an area of artificial intelligence that deals with visual perception. Azure AI Vision includes multiple services that support common computer vision scenarios.

This learning path helps prepare you for Exam AI-102: Designing and Implementing a Microsoft Azure AI Solution.

#### Prerequisites

Before starting this learning path, you should already have:

- Familiarity with Azure and the Azure portal.
- Experience programming with C# or Python. If you have no previous programming experience, we recommend you complete the Take your first steps with C# or Take your first steps with Python learning path before starting this one.

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### Analyze images

With the Azure AI Vision service, you can use pre-trained models to analyze images and extract insights and information from them.

#### Learning objectives

After completing this module, you'll be able to:

- Provision an Azure AI Vision resource
- Analyze an image
- Generate a smart-cropped thumbnail

### Image classification with custom Azure AI Vision models

Classify images by training a custom model with Azure AI Vision.

#### Learning objectives

After completing this module, you'll be able to:

- Create a custom Azure AI Vision classification model
- Understand image classification
- Understand object detection
- Train an image classifier in Vision Studio

### Detect, analyze, and recognize faces

The ability for applications to detect human faces, analyze facial features and emotions, and identify individuals is a key artificial intelligence capability.

#### Learning objectives

After completing this module, you'll be able to:

- Identify options for face detection, analysis, and identification.
- Understand considerations for face analysis.
- Detect faces with the Computer Vision service.
- Understand capabilities of the Face service.
- Compare and match detected faces.
- Implement facial recognition.

### Read Text in images and documents with the Azure AI Vision Service

Azure's AI Vision service uses algorithms to process images and return information. This module teaches you how to use the Image Analysis API for optical character recognition (OCR).

### Learning objectives

In this module, you'll learn how to:

- Read text from images using OCR
- Use the Azure AI Vision service Image Analysis with SDKs and the REST API
- Develop an application that can read printed and handwritten text

### Analyze video

Azure Video Indexer is a service to extract insights from video, including face identification, text recognition, object labels, scene segmentations, and more.

#### Learning objectives

After completing this module, you'll be able to:

- Describe Azure Video Indexer capabilities
- Extract custom insights
- Use Azure Video Indexer widgets and APIs