



Build an Azure AI Vision solution

ROLE	SKILL LEVEL	DELIVERY METHOD	PRODUCT	TECHNOLOGY
Developer	Intermediate	VILT/ILT	Azure Computer Vision	Data & Al

Course Overview

To earn this Microsoft Applied Skills credential, learners demonstrate the ability to build computer vision solutions by using Azure AI Vision.

Candidates for this credential should have a solid understanding of working with Azure AI Vision models, both prebuilt and custom, through Vision Studio and in code. They should also have experience programming in either Python or C#, be familiar with the Azure portal, and be comfortable provisioning Azure AI resources.

Tasks performed.

- Create a computer vision resource
- Analyze images
- Create a custom image analysis model
- Train and evaluate the model
- Consume a custom model

Prerequisites

- 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 <u>Take your first steps with C#</u> or <u>Take your first steps with Python</u> learning path first.

- An active Azure account
- Knowledge of Azure portal navigation
- Knowledge of at least one programming language (C#, Python)

Prepare for the assessment.

Module 1: 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

Module 2: 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

Module 3: 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 will be able to:

- 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

Module 4: 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

Module 5: 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

Take the assessment.

This assessment will use an interactive lab to evaluate your performance. It will take a few minutes to load the lab, and you may do other activities while it loads. After you launch the lab, you will need to wait **72 hours** to launch it again. Your mouse movements and text entered during the lab will be recorded for quality purposes. Learn more

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