

# **Developing AI Vision Apps Using Microsoft Cognitive Services**

**Modality: On Demand**

**Duration: 20 Hours**

## **About this Course:**

Microsoft Cognitive Services encompasses an assemblage of APIs and Cloud Intelligence Services designed for developing sophisticated and smarter applications. These services contain a broad range of Vision APIs offering functionalities required to effectively resolve business issues relating to the implementation and adoption of cognitive services. This is a practical training program providing hands-on knowledge about the functions and features of Vision APIs.

This course covers both the basic and advanced topics relating to Microsoft Cognitive Services to help professionals build a solid foundation. The teachings of this course review Computer Vision API, Optical Character Recognition, Face API Detection, Image Categorization & Tagging, Metadata Development, Emotion API & Recognition, and Image Manipulation. Furthermore, it also reviews Custom Vision APIs and provides professionals with the skillset needed to customize Vision Language Models and utilize Case-Specific Recognition.

Through this course, professionals will gain fluency in developing Windows 10 Applications compatible with multiple devices such as Tablets, HoloLens, Xbox Consoles, and Phones. In a nutshell, this course train professionals with the advanced skillset needed to develop AI Applications.

## **Course Objectives:**

The core objective of this course is to help professionals gain a better understanding and sound knowledge of the following key concepts:

- Image Identification, Categorization, and Tagging
- Interpreting Characteristics such as Scene, Age, Mood, and Faces from Images
- Optical Character Recognition (OCR) Image Operations & Performance
- Intelligent Photos Manipulation
- Image Classifier App Development

## **Audience:**

This course is tailored for the following group of professionals and interested candidates:

- Professional Developers
- Expert Programmers
- IT Professionals

## **Prerequisites:**

Professionals planning to enroll in the Developing AI Speech Apps with Microsoft Cognitive Services

must comply with the following set of prerequisites:

- Intermediate-Level Skills in C Languages such as C#, C/C++, and JAVA.
- Fundamental Knowledge of C# Language is Highly Recommended but not Obligatory

## **Course Outline:**

The course outline is as below:

### **Course Introduction and Overview**

#### **Computer Vision**

- Overview of Microsoft Cognitive Services
- Overview of Computer Vision
- Activity-Subscribing to the Computer Vision API
- Describing and Tagging Images
- Categorizing Images
- Working with Visual Features
- Lab-Analyzing and Describing Images
- Assessments

#### **Face and Emotion**

- The Face API
- Activity-Subscribing to the Face API
- Face Concepts
- The Emotion API
- Accessing the Emotion API Keys
- Emotion Concepts
- Lab-Detecting Faces and Emotion in Images
- Assessments

#### **OCR and Image Manipulation**

- Overview of OCR
- OCR Concepts
- Image Manipulation
- Lab-Performing OCR and Image Manipulation
- Assessments

#### **Custom Vision**

- Overview of Custom Vision
- Custom Vision Concepts
- The Custom Vision Portal
- Lab-Working with the Custom Vision Portal
- The Custom Vision Service API

- Lab-Working with the Custom Vision Service API
- Assessments

## **Final Project**