Developing AI Speech Apps with 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 Speech 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 Speech 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 Bing Speech API, REST Service Calls, Audio to Text Conversion, Speech Intent Identification, and Natural Responsiveness Functionalities. Furthermore, it also reviews Custom Speech APIs and provides professionals with the skillset needed to customize speech-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 knowledge and sound understanding of the following key concepts:

- Spoken Content Translation from One Language to Another
- Speech Recognition and Synthesis Operations
- Using Speaker Verification instead of Standard Authentication
- App Experiences and Speech Commands Integration
- Speakers Identification through Voice Identification
- Developing Speaker Recognition and Speech Application

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 follows:

Module 0: Introduction

- Course introduction and overview

Module 1: Bing Speech

- Overview of Microsoft Cognitive Services
- Overview of Bing Speech
- Activity-Subscribing to the Bing Speech API
- Performing Speech Recognition
- Working with Outputs
- Speech Synthesis
- Lab-Recognizing and Synthesizing Speech
- Assessments

Module 2: Translator Speech

- Overview of Translator Speech
- Activity-Subscribing to the Translator Speech API
- Performing Speech Translation
- Lab-Translating Speech
- Assessments

Module 3: Speaker Recognition

- Overview of Speaker Recognition
- Activity-Subscribing to the Speaker Recognition API
- Speaker Recognition Concepts
- Speaker Verification
- Speaker Recognition
- Lab-Performing Speaker Verification
- Assessments

Module 4: Custom Speech

- Overview of Custom Speech
- Custom Speech Concepts
- The Custom Speech Portal
- Lab-Working with the Custom Speech Portal

- The Custom Speech API
- Lab-Working with the Custom Speech API
- Assessments

Module 5: Final Project

- Creating an AI Speech App
- Required Coding Activity