

Voice AI and Speech Recognition

Duration: 5 Days

Language: en

Course Code: PI2 - 132

Objective

By the end of this course, participants will be able to:

- Understand the fundamentals of Voice AI and speech recognition technologies.
- Identify use cases across industries, particularly in customer experience and support.
- Design and implement voice interfaces that enhance usability and accessibility.
- Integrate speech recognition with CRM and automation platforms.
- Address challenges related to voice data, including privacy, language diversity, and noise handling.

Audience

This course is designed for:

- CX and customer support professionals.
- Voicebot and chatbot developers.
- Product managers and UX designers.
- AI engineers and speech technology researchers.
- Marketing and digital transformation teams.
- Entrepreneurs exploring conversational interfaces.

Training Methodology

The course combines expert-led instruction, hands-on labs with open-source tools (e.g., Google Speech API, Whisper, Dialogflow), case study analysis, and interactive prototyping exercises. Participants will work with real datasets and simulate live customer interactions to design voice-enabled workflows.

Summary

Voice technologies are reshaping how brands engage with customers. This course offers a deep dive into the applications of Voice AI and speech recognition in modern customer experience (CX) strategies. Participants will explore how conversational AI, voicebots, and speech-to-text systems streamline communication, personalise service, and improve accessibility across industries.

The course blends technical understanding with customer-centric design, guiding participants through building and deploying voice-enabled solutions. From automating call centres to enhancing mobile apps with voice input, participants will discover how to turn spoken interactions into competitive advantage.

Course Content & Outline

Section 1: Introduction to Voice AI and Speech Recognition

- What is Voice AI? Overview and evolution of the technology.
- Key components: ASR (Automatic Speech Recognition), TTS (Text-to-Speech), NLP.
- Use cases in customer service, healthcare, banking, and retail.
- Benefits and limitations of voice-first experiences.
- Demo: Voice assistant in customer onboarding.

Section 2: Customer Experience Transformation Through Voice

- Enhancing accessibility and inclusivity through speech interfaces.
- Reducing friction in user journeys with voice commands.
- Personalisation through voice data analytics.
- Multilingual support and handling accents and dialects.
- Case study: Voice AI in a telecom support system.

Section 3: Building and Training Voice Interfaces

- Understanding voice UX: clarity, brevity, and error handling.
- Tools and platforms: Google Dialogflow, Amazon Lex, Microsoft Azure Speech.
- Designing conversational flows for call centres and apps.
- Integrating speech recognition with CRM systems.
- Hands-on activity: Build a simple voicebot for FAQs.

Section 4: Speech Analytics and Real-Time Voice Insights

- Analysing call data for sentiment and intent.
- Real-time agent assistance and automatic transcriptions.
- Quality assurance with voice sentiment scoring.
- Dashboarding and voice interaction KPIs.
- Live exercise: Apply sentiment analysis to voice transcripts.

Section 5: Security, Ethics, and Future Trends

- Voice biometrics and user authentication.
- Addressing privacy and data consent in voice applications.
- Ethical use of voice data: surveillance vs. service.
- The future of ambient computing and voice AI integration in IoT.
- Final project: Propose a voice CX solution for your industry.

Certificate Description

Upon successful completion of this training course, delegates will be awarded a Holistique Training Certificate of Completion. For those who attend and complete the online training course, a Holistique Training e-Certificate will be provided.

Holistique Training Certificates are accredited by The CPD Certification Service (CPD), and are certified under ISO 9001 and ISO 29993 standards.

CPD credits for this course are granted by our Certificates and will be reflected on the Holistique Training Certificate of Completion. In accordance with the standards of The CPD Certification Service, one CPD credit is awarded per hour of course attendance. A maximum of 50 CPD credits can be claimed for any single course we currently offer.

Categories

AI, Data and Visualisation, IT & Computer Application, Technology

Tags

Artificial Intelligence, Voice AI, Speech Recognition

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