



Theme

Learning Objectives

1	Revisit: "What is AI"?	This experiential session will recap the fundamentals of AI and provide students with an overview to advanced AI technologies and features.
2	AI and Natural Language Processing [NLP] : Text Recognition	Code and create an AI program to carry out text classification and sentiment analysis.
3	AI and NLP: Speech Recognition	Code and create an Interactive Avatar program which utilizes Speech Recognition and generation tools.
4	AI and Neural Networks	Learn about Neural Networks by creating an AI program to play the "Stroop Effect" game to demonstrate how the human brain processes words and colors differently.
5	AI and Natural Interaction: Speech Recognition	Learn to code and create a program to play the "Find my Birthday" game using Speech Recognition tools.
6	AI and its impact on Society [Part 4]	Explore topics, concepts through various scenarios and Case Studies, and describe the ways that AI systems can be designed for inclusivity.
7	AI and Natural Interaction: Language Translation	Develop an AI Language Translator project to explore its applications and its societal impact.
8	AI and Natural Interaction: Image Classification	Develop an AI Image Classification program, and train it using computer vision tools and Machine Learning to display human-like reactions.
9	AI and Natural interaction: Conversational Agents	Work on a conversational agent project to explore how supervised learning functions on current conversational agents such as Alexa, Siri etc.
10	AI and Natural interaction: Emotion Recognition	Work on an AI program that will use Machine Learning models and image classification to recognize and label facial expressions according to emotions such as happiness, sadness, anger etc.
11	AI and Natural Interaction: Face Recognition	Develop an AI Image classification program that will recognize and identify different human faces based on the data provided by the user.
12	Coded Bias: Part 1	Inspire students to discuss how bias impacts society using the Case Study methodology. Provide for innovative and transformational knowledge about fake news, data privacy etc.
13 14	Capstone Projects	Students will design their own projects using the PBL {Project Based Learning Framework} that applies AI to solve a problem. Instructors will guide the students using the Design Thinking philosophy.