

# **Artificial Intelligence & Machine Learning: Applications in Business**

## Industry Integrated Certification Course

8/7/2020

LLOYD BUSINESS SCHOOL

IN COLLABORATION WITH TRAINING PARTNER 'V3 SOLUTIONS'




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## **LLOYD BUSINESS SCHOOL**

*In Collaboration with Training Partner 'V3 Solutions'*

### **Industry Integrated Certification Course**

### **Artificial Intelligence & Machine Learning: Applications in Business (AI-ML)**

#### **About Course**

The Annual list of Indeed's "25 best jobs of 2019" named the job of a Machine Learning Engineer as No. 1, citing a 344% increase in job postings in the last few years. The future of tomorrow is certain to be in ML and AI. The course offers building blocks in understanding of AI & ML.

This course in AI and ML gives training on the skills required to become a successful Artificial Intelligence Engineer. Throughout this exclusive course, you'll master Deep Learning, Machine Learning, and the programming languages required to excel in this domain and kick-start your career in Artificial Intelligence.

#### **This course aims to provide:**

- Comprehensive and rigorous curriculum covering key concepts and technologies of Artificial Intelligence and Machine Learning
- A week of Capstone project where you will work towards solving a Data Science related business problem under the mentorship of faculty and practitioners.
- Development of Chat bots : AI
- Hands on lab training

#### **Who can attend?**

- Students who would like to pursue a expert course in AI
- Young executives aspiring to enter and grow their careers in Management Domain.
- Academicians who are inclined towards research.
- Mid-level managers

## Detailed Course

Course : Artificial Intelligence & Machine Learning: Applications in Business		Areas	Delivery Hours
<b>Module 1: Introduction to Machine Learning</b>			<b>5hrs</b>
<b>1.1 Basics in Machine Learning</b>	<ol style="list-style-type: none"> <li>1. What is ML?</li> <li>2. ML vs. AI</li> <li>3. Statistical Models in ML</li> </ol>		2hrs
<b>1.2 Machine Learning Algorithms</b>	Basic Algorithms in Machine Learning <ol style="list-style-type: none"> <li>1. Logistic Regression</li> <li>2. Classification</li> <li>3. Decision Tree</li> <li>4. K means Clustering</li> <li>5. Nearest-neighbour Methods</li> </ol>		3hrs
<b>Module 2 Neural Networks and Deep Learning</b>			<b>10hrs</b>
<b>2.1 Basic to Neural Networks and Deep Learning</b>	<ol style="list-style-type: none"> <li>1. Introduction to Neural Networks</li> <li>2. Introduction to Deep Learning and its applications</li> </ol>		5hrs
<b>2.2 Modelling in Machine Learning</b>	<ol style="list-style-type: none"> <li>1. Model development</li> <li>2. Model evaluation</li> <li>3. Model deployment</li> </ol>		5hrs
<b>Module 3</b>			<b>5hrs</b>
<b>AI with Watson</b>			
<b>3.1 Introduction to IBM Watson</b>	<ol style="list-style-type: none"> <li>1. Overview of IBM Watson</li> <li>2. IBM WATSON Studio</li> <li>3. IBM Knowledge Discovery</li> </ol>		5hrs

4. Natural Language	
<b>Module 4 Natural Language Processing</b>	<b>5hrs</b>
<b>4.1 Natural Language Concepts and components</b>	<b>5hrs</b>
	<ol style="list-style-type: none"> <li>1. NLU</li> <li>2. NLG</li> <li>3. Natural Language Processing Pipeline</li> <li>4. Natural language Processing Metrics</li> <li>5. Speech to Text</li> <li>6. Text to Speech</li> <li>7. Personality Analyser</li> <li>8. Tone Analyser</li> </ol>
<b>Module 5</b>	<b>5hrs</b>
<b>Computer Vision and Visual Recognition</b>	
<b>5.1 Statistical Analysis using R</b>	<ol style="list-style-type: none"> <li>1. Image Representation</li> <li>2. Computer Vision Pipeline</li> <li>3. Visual Recognition <ul style="list-style-type: none"> <li>- Face Recognition</li> <li>- General recognition</li> </ul> </li> </ol>
<b>6. Module Building Chat-bots</b>	<b>5hrs</b>
<b>6.1 Chabot development fundamentals</b>	<ol style="list-style-type: none"> <li>1. What are chat bots?</li> <li>2. The emergence of Messengers and AI</li> <li>3. Who are chat bots for?</li> <li>4. The Chabot we're going to build</li> </ol>
<b>6.2 1. Building Chat Boot Solution</b>	<ol style="list-style-type: none"> <li>1. Chabot development and design using IBM Watson</li> </ol>

<b>Module 7</b>	
<b>Project and Case Discussions</b>	<b>5hrs</b>
<i>Case Discussion and Project work</i>	
<b>TOTAL</b>	<b>40hrs</b>

**Course Outcomes:**

Upon successful completion of this course, the student shall be able to:

- Demonstrate fundamental understanding to Artificial Intelligence (AI) and its applications.
- Apply AI solutions for problem solving, inference and designing solutions for business.
- Demonstrate awareness and a fundamental understanding of various applications of AI techniques in intelligent agents, expert systems, artificial neural networks and other machine learning models.
- To demonstrate project executions with AI platform on IBM Watson.

**References**

1. Artificial Intelligence | Third Edition | By Peason

**Websites**

<https://www.ibm.com/in-en/watson>