

**AI and ML Basics for Executives**

**Course Number:** PYTH-206  
**Duration:** 1 day

**Overview**

This live, online Artificial Intelligence (AI) and Machine Learning (ML) Basics for Executives training course provides attendees with a non-technical introduction to AI and ML. Participants learn ML concepts, including supervised and unsupervised learning techniques and usages. This course explains the differences among AI, ML, and DL, along with usage patterns. Attendees expand their AI vocabulary to understand techniques like Classification, Clustering, and Regression.

**Prerequisites**

Attendees should have basic programming knowledge.

**Materials**

All AI and ML training students receive comprehensive courseware.

**Software Needed on Each Student PC**

Detailed setup will be provided upon request.

**Objectives**

* Describe supervised and unsupervised learning techniques and usages
* Compare AI versus ML versus DL
* Understand techniques like classification, clustering, and regression
* Identify which kinds of techniques should be applied for a specific use case
* Understand the popular Machine offerings, including Amazon Machine Learning, TensorFlow, Azure Machine Learning, Spark mlib, Python, and R.
* Understand the relationship between Data Engineering and Data Science
* Understand the Data Science process
* Discuss Machine Learning use cases in different domains
* Identify when to use or not use Machine Learning
* Understand how to form a successful ML team
* Understand usage of tools through an ML Demo and hands-on labs

**Outline**

* Course Introduction
* History and Background of AI and ML
* Compare AI vs ML vs DL
* Supervised and Unsupervised Learning Techniques and Usages
* Machine Learning Patterns
  + Classification
  + Clustering
  + Regression
* Gartner Hype Cycle for Emerging Technologies
* Machine Learning Offerings in Industry
* Machine Learning Use Cases in Different Domains
* The Data Science Process to Apply to ML Use Cases
* Identify the Different Roles Needed for a Successful ML Project
* References and Next Steps
* Structured Activity/Exercises/Case Studies:
  + Create an account for Microsoft Azure Machine Learning Studio
  + ML using Azure ML Studio
  + Demo of ML using Scikit-learn
* Conclusion