

**Corporate Online AI Seminars**

**Course Number:** PYTH-208
**Duration:** 1 day

**Overview**

Are you and your team frustrated trying to understand the basics and terminology of Artificial Intelligence (AI)? Take Accelebrate’s corporate AI seminars and immediately understand the roles of popular data science technologies and techniques, including Linear Regression Models, Machine Learning Model Deployment, Data Visualization, Data Exploration and Analysis, and Classification Algorithms.

Each seminar is 90 minutes. You may choose any 4 seminars below to create a custom 1-day course or any 2 seminars for a half-day course at 65% of the full day price.

**Prerequisites**

All students must have a basic understanding of the Python programming language and Juypter Notebook.

**Materials**

All AI seminar attendees received a copy of the instructor’s presentation and links to all examples shown.

**Software Needed on Each Student PC**

A full installation of the Anaconda Python distribution (<https://www.anaconda.com/>) and related lab files.

**Objectives**

* Linear Regression Models
	+ Understand linear regression algorithms
	+ Build a machine learning model
* Machine Learning Model Deployment
	+ Explore different tools to deploy machine learning models
* Data Visualization
	+ Use tools to visualize data as part of data exploration
	+ Perform machine learning on the data
* Data Exploration and Analysis
	+ Use data to build Machine Learning models
	+ Learn about popular tools used to perform data analysis
* Classification Algorithm
	+ Classify structured data and make predictions

**Outline**

* Linear Regression Models Seminar (90 minutes)
	+ Building a model on a dataset
	+ The metrics involved in looking performance of the model
* Machine Learning Model Deployment Seminar (90 minutes)
	+ Saving a machine learning model
	+ Loading that model to make predictions on new data
* Data Visualization Seminar (90 minutes)
	+ Matplotlib and Seaborn libraries to explore data
	+ Plotting different types of charts (pie, bar, histograms) to explore the data
	+ Visualizing correlations in the dataset
* Data Exploration and Analysis Seminar (90 minutes)
	+ Using the Pandas library to explore data
	+ Reading data from various file formats such as Comma Separated Values (.csv), JavaScript object notation (.JSON)
	+ Looking for data values missing in the dataset
	+ Understanding the statistics in the dataset
	+ Replacing missing values in the dataset
* Classification Algorithms Seminar (90 minutes)
	+ What classification means in machine learning
	+ The algorithms involved in classification
	+ Using a classification algorithm to build a classification model
	+ The metrics involved in the performance of the model