

# **From 0 to 1: Machine Learning, NLP & Python-Cut to the Chase**

**Modality: On Demand**

**Duration: 20 Hours**

## **About this course:**

First, let's get the idea about what Machine Learning, NLP and Python is. Well for starters, Machine learning is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed. Machine learning focuses on the development of computer programs that can access data and use it learn for themselves. Neuro-linguistic programming (NLP) is an approach to communication, personal development, and psychotherapy created by Richard Bandler and John Grinder in California, United States in the 1970s.

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures, combined with dynamic typing and dynamic binding, make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together. In this course students will learn about Machine Learning, Natural Language Processing with Python, Sentiment Analysis, Mitigating Overfitting with Ensemble Learning.

The average salary for Big Data Professional is **\$69,870** per year.

## **Course Objective:**

After completing this course, students will have a working understanding of:

- Solving Classification Problems
- Clustering as a form of Unsupervised learning
- Association Detection
- Dimensionality Reduction
- Regression as a form of supervised learning
- Natural Language Processing and Python
- Sentiment Analysis
- Decision Trees
- A Few Useful Things to Know About Overfitting
- Random Forests
- Recommendation Systems

## **Audience:**

This course is intended for:

- Analytics professionals, modelers, big data professionals who haven't had exposure to machine learning

- Engineers who want to understand or learn machine learning and apply it to problems they are solving

## Prerequisites:

- No prerequisites, knowledge of some undergraduate level mathematics would help but is not mandatory. Working knowledge of Python would be helpful if you want to run the source code that is provided.

## Suggested prerequisites courses:

- [Python for Beginners](#)
- [Python Object Oriented Programming Fundamentals](#)

## Course Outline:

- Introduction
- Jump right in : Machine learning for Spam detection
- Solving Classification Problems
- Clustering as a form of Unsupervised learning
- Association Detection
- Dimensionality Reduction
- Regression as a form of supervised learning
- Natural Language Processing and Python
- Sentiment Analysis
- Decision Trees
- A Few Useful Things to Know About Overfitting
- Random Forests
- Recommendation Systems
- Recommendation Systems in Python
- A Taste of Deep Learning and Computer Vision