**Syllabus**

**Coppell, TX September 28, 2017**

|  |  |
| --- | --- |
| 8:30 am to 3:30 pm |  |

Contact Information

Louis Frolio

[louis.frolio@ibm.com](mailto:louis.frolio@ibm.com)

+1-508-369-7777

Ashley Troggio

[atroggio@us.ibm.com](mailto:atroggio@us.ibm.com)

+1-214-316-0623

Pre-requisites

**Previous Experience:**

* Business Intelligence
* Conditioning and management of business data
* Writing structured Query Language (SQL) queries
* Familiarity with basic statistics

**Completed before class starts:**

* Sign up for the 30-day trial of Data Science Experience.

<https://datascience.ibm.com/>

Course Description

The goal of this boot camp is to empower attendees to immediately participate with confidence, in the identification of advanced analytics opportunities and engage them meaningfully with a deeper understanding.

Course Objectives

Upon completion of this data science and machine learning boot camp, you should be able to:

* Educate customers on the benefits and power of data science and machine learning
* Speak with confidence to address deep technical customer discussions
* Understand the tools, technology, and processes

Course Resources

|  |  |
| --- | --- |
| **Software** | **Link** |
| IBM Data Science Experience | https://datascience.ibm.com/ |
| IBM SPSS Statistics | https://www.ibm.com/analytics/us/en/technology/spss/ |
| Jupyter | <http://jupyter.org/> |
| GitHub | https:/github.org/ |
| Anaconda | https://www.anaconda.com/ |
| RStudio | https://www.rstudio.com/ |

Course Topics

|  |  |  |
| --- | --- | --- |
| **Module** | **Lessons** | **Labs** |
| 0 | **Welcome Message**   * Course Objectives |  |
| 1 | **Introduction to Data Science**   * Analytics Lifecycle Process * Tools & Technology |  |
| 2 | **Statistics Overview**   * Descriptive & Inferential Statistics * Statistical Sampling | Descriptive Statistics |
| 3 | **Introduction to Machine Learning**   * Categories * Training & Testing Data | Data Gathering & Exploration |
| 4 | **Approaches to Machine Learning**   * Classification, Regression, Associations, & Clustering * Advanced Techniques | Multiple Linear Regression |
| 5 | **Summary & Next Steps**   * Helpful Links |  |