### ANALYTICS PATH

# Course Completion Certificate

This is To Certify that

## S.Satya Venkatesh

has successfully completed comprehensive Class Room Course

in Data Science

Artificial Intelligence / Machine Learning / Deep Learning

with R, Python, Spark ML, Tensorflow & Keras

Nov 2017 to April 2018





APDS11/201711/104

**Certification Number** 

Ramchander .P Director - Academics



**Training Mode** 

: Instructor - Led Classroom Training

**Number of Hours** 

: 200 (Hands-On Training)

Machine Learning in : R / Python / Spark ML / Tensorflow / Keras

Big Data Engineering: Hadoop Components

#### About Data Science / Big Data Analytics Instructor Led Classroom Training:

The Data Science – Machine Learning / Artificial Intelligence and Big Data Analytics integrated program is an intensive course designed that makes aspiring Data Scientists, an expert at

understanding the real business problem, designing the analysis and applying statistical modeling techniques to derive business insights from data.

Our training course content and materials is developed by analytics experts and taught by qualified faculty with extensive experience in the industry and research in their respective domains ho help ensure that students derive the maximum value from the Data Science training chosen.

Analytics Path Data Science training program has been designed to help meet the growing needs for these Data Scientists" with the program comprising the focus area of both Big Data and Basic to Advanced Analytics.

#### Module1: Business Statistics & Application

- Descriptive Statistics: Measures of Central Tendency, Measures of Spread, Probability Distributions (Discrete & Continuous), Distributions –
- Normal, Binomial and Poisson, Probability Density Functions, Sampling Distributions, Central Limit Theorem, t-distribution
- Inferential Statistics: Population v/s Sample, Confidence Intervals, Measures of Relationships Correlation, Covariance, Associations & Odds Ratio Probability Refresher

#### Module2: Data Exploration / Visualization & Data Pre-Processing

- Charts & Graphs Histogram, Bar chart, Pie chart, Box Plots, Scatter Plots, Line Graphs
- Data Pre-Processing Data Types & Conversions, Binning & Normalization, Min-Max Scaling, Imputation, Dimensionality Reduction, Outlier
- Detection and Management, Handling missing values

#### Module3: MACHINE LEARNING Techniques & Algorithms - Supervised and Unsupervised

- Essentials to Machine Learning: Regression & Classification, Training, Validation & Testing, Measures of Performance
- Linear Regression, Logistic Regression(Classification), Decision Trees, Bagging and Random Forest, Boosting, Cross Validation Clustering(Segmentation), Dimensionality Reduction Techniques – PCA & SVD, Factor Analysis, Recommender Systems, Association Rules, Forecasting – Time Series
- Artificial Intelligence
  - Deep Learning ANN / CNN / RNN / LSTM
  - Text Mining Text Analytics, Natural Language Processing (NLP), Sentiment Analysis, Text Pre-Processing, Text Classification

#### Module4: Big Data Analytics

Introduction to Big Data, Hadoop - Distributed File System, Hadoop Ecosystem Components - Hive, Sqoop, Hbase, Spark