



CERTIFIED DATA SCIENTIST

Become a Certified Data Scientist and Secure the Jobs of Future

Training Highlights

 **LIVE** 200+ hours of Live Training



10+ Case studies



1:1 Mentoring



Learn 12+ tools



Certification



@Appleton Innovations

PROGRAM SYLLABUS

Accredited by



CONTENTS

COURSE 1: DATA SCIENCE FOUNDATION

COURSE 2: PYTHON FOR DATA SCIENCE

COURSE 3: MATHS FOR DATA SCIENCE

COURSE 4: STATISTICS FOR DATA SCIENCE

COURSE 5: DATA ANALYSIS USING NUMPY & PANDAS

COURSE 6: VISUALIZATION WITH PYTHON

COURSE 7: MACHINE LEARNING ASSOCIATE

COURSE 8: MACHINE LEARNING ADVANCED

COURSE 9: SQL FOR DATA SCIENCE

COURSE 10: DEEP LEARNING – CNN BASICS

COURSE 11: ML MODEL DEPLOYMENT

COURSE 12: TIME SERIES FOUNDATION

COURSE 1: DATA SCIENCE FOUNDATION

- INTRODUCTION TO DATA SCIENCE
- DATA SCIENCE VS BUSINESS ANALYTICS VS BIG DATA
- CLASSIFICATION OF BUSINESS ANALYTICS
- DATA SCIENCE PROJECT WORKFLOW
- ROLES IN DATA SCIENCE
- APPLICATION OF DATA SCIENCE IN VARIOUS INDUSTRIES

COURSE 2: PYTHON FOR DATA SCIENCE

- PYTHON INSTALLATION AND SETUP
- JUPYTER NOTEBOOK
- GOOGLE COLAB
- PYTHON INTRODUCTION
- PYTHON DATA STRUCTURES
- PYTHON CONTROL STATEMENTS
- PYTHON LOOPS
- FUNCTIONS
- MODULES AND PACKAGES

COURSE 3: MATHS FOR DATA SCIENCE

- EIGENVALUES AND EIGENVECTORS
- LINEAR TRANSFORMATIONS AND MATRICES
- MULTIVARIABLE CALCULUS
- VECTORS AND VECTOR SPACES
- VECTOR-VALUED FUNCTIONS

COURSE 4: STATISTICS FOR DATA SCIENCE

- INTRODUCTION TO STATISTICS
- HARNESSING DATA
- EXPLORATORY ANALYSIS
- DISTRIBUTIONS
- HYPOTHESIS TESTING
- HYPOTHESIS TESTING - CRITICAL VALUE METHOD
- HYPOTHESIS TESTING – PVALUE METHOD
- T-TESTS
- ONE WAY ANOVA TEST / FTEST
- NON-PARAMETRIC HYPOTHESIS TESTING
- CORRELATION & REGRESSION

COURSE 5: DATA ANALYSIS USING NUMPY & PANDAS

- NUMPY NUMERICAL PYTHON PACKAGE
- OPERATIONS ON NUMPY ARRAYS
- PANDAS : DATA ANALYSIS LIBRARY
- DATA CLEANING
- DATA MUNGING WITH PANDAS

COURSE 6: VISUALIZATION WITH PYTHON

- BASICS OF VISUALIZATION
- BASIC VISUALIZATIONS USING MATPLOTLIB
- ADVANCED VISUALIZATIONS USING SEABORN
- PLOTTING CATEGORICAL DATA
- PLOTTING TIME SERIES DATA
- PLOTTING DATA DISTRIBUTIONS
- INTERACTIVE PLOTTING

COURSE 7: MACHINE LEARNING ASSOCIATE

- MACHINE LEARNING INTRODUCTION
- MACHINE LEARNING ALGORITHMS
- SIMPLE LINEAR REGRESSION
- LINEAR REGRESSION IN PYTHON
- MULTIPLE LINEAR REGRESSION
- LOGISTIC REGRESSION BINARY CLASSIFIER
- K NEAREST NEIGHBOR KNN CLASSIFIER
- UNSUPERVISED LEARNING: CLUSTERING
- K MEANS CLUSTERING
- HIERARCHICAL CLUSTERING
- PRINCIPLE COMPONENT ANALYSIS (PCA)

COURSE 8: MACHINE LEARNING ADVANCED

- CART: DECISION TREE
- DECISION TREE
- DECISION TREE HYPERPARAMETER TUNING
- RANDOM FOREST ENSEMBLE BAGGING TECHNIQUE
- NAÏVE BAYES
- BOOSTING: INTRODUCTION, ADABOOST, GRADIENT BOOSTING, XGBOOST
- SUPPORT VECTOR MACHINE
- ARTIFICIAL NEURAL NETWORK (ANN)
- ADVANCED ML CONCEPTS

COURSE 9: SQL FOR DATA SCIENCE

- INSTALL SQL PACKAGES AND CONNECTING TO DB
- RDBMS
- SELECT SQL COMMAND
- WHERE CONDITION
- SQL JOINS
- LEFT JOIN, RIGHT JOINS, MULTIPLE JOINS

COURSE 10: DEEP LEARNING – CNN BASICS

- INTRODUCTION TO DEEP LEARNING
- INTRODUCTION TO IMAGE BASICS
- IMAGE PROCESSING BASICS
- CONVOLUTIONAL NEURAL NETWORK CNN INTRO
- KERAS– TENSORFLOW
- CASE-STUDY: IMAGE CLASSIFICATION

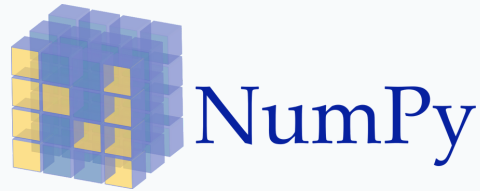
COURSE 11: ML MODEL DEPLOYMENT

- INTRODUCTION TO ML MODEL DEPLOYMENT
- BASICS OF APPLICATION PROGRAM INTERFACE (API)
- INSTALLING FLASK AND FLASK CORS
- WEBSITE BASICS: HTML, CSS
- END TO END ML PROJECT WITH API DEPLOYMENT
- HOSTING ML WEBSITE

COURSE 12: TIME SERIES FOUNDATION

- TIME SERIES DATA INTRODUCTION
- TREND, SEASONALITY, CYCLICAL AND RANDOM
- WHITE NOISE,
- AUTO REGRESSIVE MODEL (AR), MOVING AVERAGE MODEL (MA),
- ARMA MODEL
- STATIONARITY OF TIME SERIES
- ARIMA MODEL
- CASE STUDY ASSIGNMENT ON ARIMA

Tools Covered



Program Details

COURSE NAME : CERTIFIED DATA SCIENTIST
DURATION : 3 + 3 MONTHS LEARNING
MODE : LIVE ONLINE TRAINING

TALK TO US

(91) 6301865670

(91) 7569978839

info@appletoninnovations.com



<https://appletoninnovations.com>

