ANNA UNIVERSITY
AU TVS CENTRE FOR QUALITY MANAGEMENT

Certified Program in Data science

4 Months |Weekend Learning | Projects & Case Studies |

Data science is a professional field concerned with extracting knowledge from data. It combines elements from the disciplines of math, computer science, and statistics and data analysis to build models, create processes, explore theories and develop advanced systems for learning from the mass quantities of data being collected by the millions of internet-enabled devices. The exponential growth in the amount of data that can be collected, stored and processed has created a world of new opportunities to find deeper insights, trends and other key learnings. The data scientist explores these opportunities, looking at the data "big picture" with an eye towards machine learning and artificial intelligence applications and the development of advanced data modeling techniques.

Time: 9.30 am – 5.00 pm

Venue: AU TVS CENTRE FOR QUALITY MANAGEMENT, ANNA UNIVERSITY (Behind Vivekananda Auditorium, Anna University)

Contact

+91-44-2235 – 8555 / 8623 / 8552 / 2047

Mobile No. + 91 9498 402506 (What's App Available)

Email: cqm.annauniv.edu / www.annauniv.edu

Enquiry: Kindly email your query with your phone number to autvscqm@annauniv.edu / autvscqm2015@gmail.com

Content

INTRODUCTION TO DATA MANAGEMENT

LANGUAGES OF DATA SCIENCE

Learn tools and languages used for data analysis - R, Excel, SQL, Python & Tableau.

These modules are also part of the preparatory course

INTRODUCTION TO DATA WAREHOUSING AND OLAP

Equip yourself with the knowledge to extract and pre-process data before analysis

DATA PREPERATION

Learn how to prepare data before analysis

CASE STUDY- INVESTMENTS

Implement your learnings to find sectors in which dierent companies ought to invest

STATISTICS AND EDA

DATA VISUALIZATION

Make your data alive with visuals using R and tools like Tableau

DESCRIPTIVE STATISTICS

Summarize and describe data sets using measures such as Central tendency and variability

INFERENTIAL STATISTICS

Learn probability, Central Limit Theorem and more to draw inferences

EXPLORATORY DATA ANALYSIS

Derive initial insights from the data using R and other visualization tools

HYPOTHESIS TESTING

Understand how to formulate & test hypotheses to solve various business problems

CASE STUDY-UBER SUPPLY-DEMAND GAP

Apply Statistics and understand how Uber solves its supply-demand gap

INTRODUCTION TO MACHINE LEARNING I

LINEAR REGRESSION

Learn to implement linear regression and predict continuous data values

SUPERVISED CLASSIFICATION

Understand and implement algorithms like K-NN*, Naive Bayes* and Logistic Regression

CLUSTERING

Learn how to create segments based on similarities using K-Means and Hierarchical clustering

CASE STUDY - TELECOM CHURN

Learn how a telecom giant predicts its customer churn. Apply multiple algorithms simultaneously to see which one works the best

TIME SERIES

Learn how to make predictions using time dependent/variant data

DECISION TREES

Tree-based model that is simple and easy to use. Learn the fundamentals on how to implement them

SUPPORT VECTOR MACHINES

Learn to classify data points using support vectors

NEURAL NETWORKS

Master Feed-forward, Recurrent and Gaussian Neural Networks. This is your way into AI!

ASSOCIATION RULE MINING

Ever wondered why beer is kept next to diaper in superstores? Find out in this module

BIG DATA ANALYTICS

INTRODUCTION TO BIG DATA AND HADOOP

Understand the basic concepts of Big Data and Hadoop as processing platforms for Big Data

MANAGING BIG DATA

Learn and use Hadoop ecosystem tools like Sqoop & Hive for data ingestion, extraction and management.

INTRODUCTION TO SPARK

Understand and use Spark, a fast Big Data processing platform

BIG DATA ANALYSIS

Learn how to analyze Big Data using SparkR, SparkSQL

DOMAIN ELECTIVES

E-COMMERCE & HEALTH CARE

Program Details

You will Learn:

- ✓ This data science training course will enable you to:
- ✓ Gain a foundational understanding of business analytics
- ✓ Install R, R-studio, and workspace setup, and learn about the various R packages
- ✓ Master R programming and understand how various statements are executed in R
- ✓ Gain an in-depth understanding of data structure used in R and learn to import/export data in R
- ✓ Define, understand and use the various apply functions and DPYR functions
- ✓ Understand and use the various graphics in R for data visualization
- ✓ Gain a basic understanding of various statistical concepts
- ✓ Understand and use hypothesis testing method to drive business decisions
- ✓ Understand and use linear, non-linear regression models, and classification techniques for data analysis
- ✓ Learn and use the various association rules and Apriori algorithm

What Is Eligibility Criteria

There is an increasing demand for skilled data scientists across all industries, making this data science certification course well-suited for participants at all levels of experience. We recommend this Data Science training particularly for the following professionals:

- ✓ IT professionals looking for a career switch into data science and analytics
- ✓ Software developers looking for a career switch into data science and analytics
- ✓ Professionals working in data and business analytics
- ✓ Graduates looking to build a career in analytics and data science
- ✓ Anyone with a genuine interest in the data science field
- ✓ Experienced professionals who would like to harness data science in their fields

Admission 1. Restricted to 20 on First Come First Serve Basis.

2. Last date of Registration **01-December-2018.**

Certificate will be awarded to all participating delegates.

Scheduled Date

December'18										January'19						February'19								March'19							
7	8	9	15	16	17	22	23	29	30	5	6	19	20	26	27	2	3	9	10	16	17	23	24	2	3	9	10	16	23	24	25

PAYMENTS DETAILS

Course Fee: ₹ 48,000/-

Includes professional fee (Exclusive of TDS), Course Kit, Lunch & refreshments, Certificate, etc.

- ✓ **Special Concession 10% discount** for **AU TVS CQM program certificate holders with certificate copy.**

Payment can be made by cheque / DD in favour of **"AU TVS Centre for Quality Management"** and sent through courier or in person.

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Delegate Registration Form

Certified Data Science Program

Name (Mr. / Ms.) :

Name of the Organization :

Designation :

Specify your identity document enclosed :

(Company ID /Pan Card/ Voters Id/ Passport/ Driving License/Aadhar card)

Products/Service of the Organisation :

Academic Qualification :

Experience. (Years) :

Address (Residence/Company) :

Telephone :

Mobile :

E-Mail :

AU TVS CQM program certificate holders : Yes / No
(Enclose certificate copy)

Payment can be made by cheque / DD in favour of **"AU TVS Centre for Quality Management"** and sent through courier or in person.

Enclose the Cheque / DD No. :

Amount : Date: Bank:

Signature with date

To:
The Director,
AU TVS Centre for Quality Management,
Anna University, Chennai – 600 025.

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