



DATA ANALYST TRAINING PROGRAM

Course Description:

Data Analysis is the process of inspecting, cleaning, transforming and modeling data to discover useful information and support decisions that achieve business goals. There are various data analysis qualitative and quantitative methods and analytical or statistical tools used to extract the useful information and translate them into insights to make better business decisions.

About the Course:

This is an interactive course. Students will learn by doing and from each other, as well as the instructor, text, guest lecturers, presentations, weekly assignments and a final project.

Professionalism is very important in this field, and therefore in this course. Class attendance, punctuality, civility, ability to get along with others, cooperation, collaboration, creativity, attention to details, resourcefulness and meeting deadlines are all critical elements of success.

Full Course Description:

Course 1 - Introduction to Data Analytics

This course will give you insights into how to apply data and analytics principles in your business. Learning analytics, data visualization and data science methodologies through this course will make you capable of driving better business decisions and ROI.

Course 2 - Data Analytics with Excel

This course includes Microsoft® Excel skills and training on Power BI.

Course 3 - Programming Basics and Data Analytics with Python

Learn how to perform data analytics with Python using multi-dimensional arrays in NumPy and how to manipulate data frames in pandas. This course will take you from the basics of Python to exploring many different types of data. You will learn how to

prepare data for analysis, perform simple statistical analyses, create meaningful data visualizations, predict future trends from data and more.

Course 4 - Power BI

Power BI is a global data visualization, reporting and business intelligence tool. This course trains you to use the tool effectively for preparing data, creating interactive dashboards, adding different dimensions and drilling into outliers.

Course 5 - SQL

- Introduction to SQL
- Working with Queries (DDL,DML,DQL)
- Aggregate Functions
- Joins and Set Operations
- Implementation of Data Integrity
- Working with Constraints
- Implementing Views
- Working with Indexes
- Working with Stored Procedures and Functions

Projects:

- Web scraping projects to extra data from websites
- Exploratory data analysis projects
- Data visualization project

Definitions:

- Languages : SQL
- Languages : Python
- Tools : Power BI
- Concepts : Data reprocessing
- Concepts : Data modeling
- Concepts : Data sets
- Concepts : Statistics - basics
- Concepts : Deployment

Course Duration:

- 13 weeks
- 3 classes per week, 6 – 9 p.m.

Prerequisites:

A Bachelor's degree is preferred; strong communication and interpersonal skills.

Required Material:

We will be using various software programs throughout this course. NOTE: Most of the downloads are for Windows-based machines only and will NOT work with Apple/MAC systems. You will need access to a Windows-based system. Additionally, you must have a working internet connection and email that you check every day.

Course Learning Outcomes:

- The course provides the complete preparation you need to become a data analyst
- Acquire a big-picture understanding of the data analyst role
- Learn beginner skills of Python
- Learn NumPy and pandas basics
- Be able to work with text files
- Understand different data types and their memory usage
- Learn data visualization
- Engage with coding exercises

About the Instructor:

Timothy Stephen has more than 10 years of experience in the IT Industry, with vast experience in software development and testing. He has led different roles in various capacities and now works as an Associate Director for an IT services company. He has experience with software testing, next gen technologies, adoption of digital technologies in various industries such as retail, banking, oil and natural gas, and healthcare. He has been blessed with a spouse and three daughters. He enjoys music, playing and composing.