



DEEP LEARNING AND
ARTIFICIAL INTELLIGENCE

DATA SCIENCE

**Is Data Science certification being worth pursuing
as a career?**

If you are serious about a career pertaining to Data science, then you are at the right place.

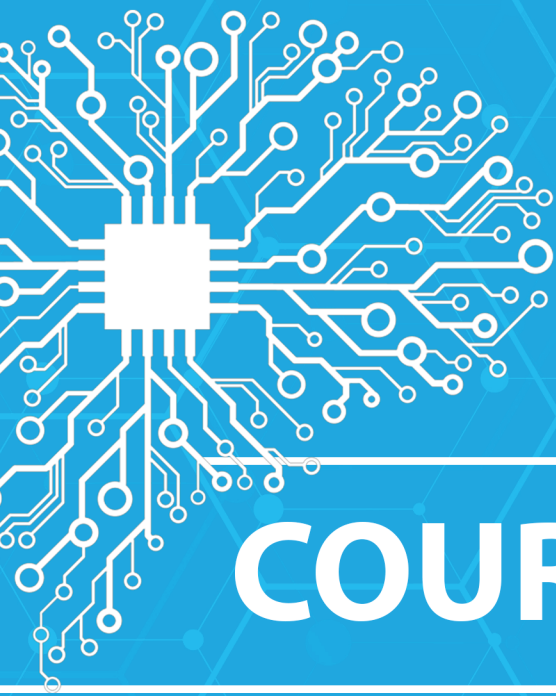
“ WHY CHOOSE US ? ”

@ Analogicx the courses are a perfect blend of theories, case studies and capstone projects. The curriculum is the most informative and the modes of learning produce a synergistic impact on learning. From basics to advanced topics, the curriculum’s design ensures that even the freshers can master the topic. The course content is tailored periodically according to the changing needs.

With us, yours will be the most high-in-demand profession and the most sought after profession in the world. To add to benefits, the career pathway is long and lucrative as the generation of online data is perpetual and growing in the future.

Ours is one of the most popular career choices in the business world. We have plenty to offer not only as a stand-alone career but also as one of the best gateways into the field of analytics and data science. In today's technology-driven economy, we help you acquire all skills.

This course is designed to equip you with the specialised skills needed to manage the development of successful A.I. products. Learning how to identify opportunities for a business to leverage AI and how to prepare the data needed, you will grasp the organisational structure of A.I. and data science teams. At the end of the course, you'll be able to take an idea, evaluate it with potential customers, prototype, strategize, build tests and iterate on AI and data-driven products



COURSES WE OFFER

Offering the most comprehensive Data Science course covering the complete Data Science lifecycle concepts from Data Collection, Data Extraction, Data Cleansing, Data Exploration, Data Transformation, Feature Engineering, Data Integration, Data Mining, Building Prediction Models and Data Visualisation, we provide a holistic approach.

Skills and tools ranging from Statistical Analysis, Text Mining, Regression Modelling, Hypothesis Testing, Predictive Analytics, Machine Learning, Deep Learning, Neural Networks, Natural Language Processing, Predictive Modelling, R Studio, Tableau, Spark, Hadoop, Programming Languages like R programming, Python are covered extensively as part of the Data Science training.

DATA SCIENCE

COURSE MODULES

Data Science Foundation

Python for Data Science

Statistics for Data Science

Machine Learning Associate

Machine Learning Expert

Time Series Foundation

SQL for Data Science

Tableau Foundation



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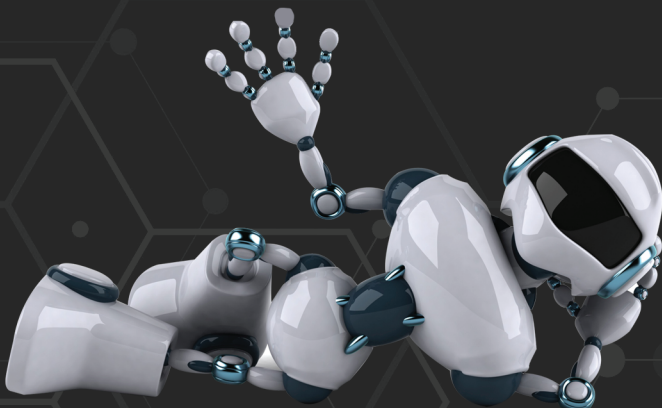
COURSE MODULES

Model Deployment

Deep Learning CNN Foundation

Artificial Neural Networks

Tensor flow



DATA SCIENCE

DATA SCIENCE FOUNDATION

- MODULE 1 :** Introduction to Data Science Evolution of Data Science
- MODULE 2 :** Data Science vs Business Analytics vs Big Data Comparing various related domains with Data Science
- MODULE 3 :** Data Science project workflow 6 States of Data Science workflow
Various Roles in Data Science Industry roles and responsibilities
- MODULE 4 :** Application of Data Science in various industries
- MODULE 5 :** Classification of Business Analytics Descriptive Analytics, Predictive Analytics,
- MODULE 6 :** Discovery Analytics and Prescriptive Analytics

PYTHON FOR DATA SCIENCE

- MODULE 1 :** Introduction to Data Science with Python Installing Python, Programming basics, Native Data types
- MODULE 2 :** Python Basics: Basic Syntax, Data Structures Data objects, Math, comparison operators, condition statements, loops, lists, tuples, sets, dicts, functions
- MODULE 3 :** **Numpy Package**
Overview, Array, selecting data, Slicing, Iterating, Array Manipulations, Stacking, Splitting arrays, Key functions
- MODULE 4 :** **Pandas Package**
Overview, Series and DataFrame, Data manipulation.
- MODULE 5 :** Python Advanced: Data Mugging with Pandast Histogram, grouping, aggregation, treating missing values, removing duplicates, Transforming data
- MODULE 6 :** Python Advanced: Visualization with Matplotlib
- MODULE 7 :** Exploratory Data Analysis: Data Cleaning, Data Wrangling
- MODULE 8 :** Exploratory Data Analysis: Case Study

STATISTICS FOR DATA SCIENCE

MODULE 1 : Introduction to Statistics

Descriptive and Inferential Statistics. Definitions, terms, types of data

MODULE 2 : Harnessing Data

Types of Sampling Data. Simple random sampling, Stratified, Cluster sampling. Sampling error

MODULE 3 : Exploratory Analysis

Mean, Median and Mode, Data variability, Standard deviation, Z-score, Outliers

MODULE 4 : Distributions

Normal Distribution, Central Limit Theorem, Histogram, Normalization, Normality tests, skewness, Kurtosis

MODULE 5 : Hypothesis & computational Techniques Hypothesis Testing, Null

Hypothesis, P-value, Type I & II errors, parametric testing: t-tests, anova test, non-parametric testing

MODULE 6 : Correlation & Regression

MACHINE LEARNING ASSOCIATES

MODULE 1 : Machine Learning Introduction

What is ML? ML vs AI. ML workflow, statistical modeling of ML. Application of ML.

MODULE 2 : Machine Learning Algorithms

Popular ML algorithms, clustering, classification and regression, supervised vs unsupervised. Choice of ML.

MODULE 3 : Supervised Learning

Simple and Multiple Linear regression, KNN, and more.

MODULE 4 : Linear Regression and Logistic Regression Theory of Linear regression, hands on with use cases

MODULE 5 : K-Nearest Neighbour (KNN)

MODULE 6 : Decision Tree

MODULE 7 : Naïve Bayes Classifier

MODULE 8 : Unsupervised Learning K-means Clustering

MACHINE LEARNING EXPERT

MODULE 1 : Advanced Machine Learning Concepts

Tuning with Hyper parameters. Popular ML algorithms, clustering, classification and regression, supervised vs unsupervised. Choice of ML.

MODULE 2 : Random Forest - Ensemble

Ensemble theory, random forest tuning

MODULE 3 : Support Vector Machine (SVM)

Simple and Multiple Linear regression, KNN

MODULE 4 : Natural Language Processing (NLP)

Text Processing with Vectorization, Sentiment analysis with TextBlob, Twitter sentiment analysis.

MODULE 5 : Naïve Bayes Classifier

Naïve Bayes for text classification, new articles tagging.

MODULE 6 : Artificial Neural Network (ANN)

Basic ANN network for regression and classification.

MODULE 7 : Tensorflow overview and Deep Learning Intro Tensorflow work flow demo and intro to deep learning.

TIME SERIES ANALYSIS

- 1 : What is Time Series?
- 2 : Trend, Seasonality, cyclical and random
- 3 : White Noise
- 4 : Auto Regressive Model (AR)
- 5 : Moving Average Model (MA)
- 6 : ARMA Model
- 7 : Stationarity of Time Series
- 8 : ARIMA Model - Prediction Concepts
- 9 : ARIMA Model Hands on with Python
- 10 : Case Study Assignment on ARIMA

SQL IN DATA SCIENCE

MODULE 1 : Install SQL packages and Connecting to DB SQLAlchemy, PyMySQL

MODULE 2 : RDBMS (Relation Database Management) Basics Basics of SQL DB, Primary key, Foreign Key

MODULE 3 : SELECT SQL command, WHERE Condition Retrieving data with SELECT SQL command and WHERE Condition to Pandas Data Frame.

MODULE 4 : SQL JOINS
Left Join, Right Joins, Multiple Joins

TABLEAU FOUNDATION

MODULE 1 : **Tableau Introduction**
Tableau Interface, Dimensions and measures, filter shelf, Distributing and publishing

MODULE 2 : **Connecting to Data Source**
Connecting to sources, excel, data bases, api, pdf. Extracting and interpreting data.

MODULE 3 : **Visual Analytics**
Charts and plots with Super Store data

MODULE 4 : **Forecasting**
Forecasting time series data. Sales.



DEEP LEARNING AND ARTIFICIAL INTELLIGENCE

MODEL DEVELOPMENT - API

- MODULE 1 :** Basics of Application Program Interface (API) API basics, loosely coupled architecture.
- MODULE 2 :** Installing Flask and Flask_cors
- MODULE 3 :** Installation and configuring Flask and cross domain authentication.
- MODULE 4 :** End of End ML project with API deployment Complete project flow with API deployment and assessing through website.

DEEP LEARNING CPP FOUNDATION

- MODULE 1 :** Introduction to Deep learning
What is Deep Learning?, Various Deep Learning models in practice and applications.
- MODULE 2 :** Introduction to Image Basics Image resolution, pixels, image manipulations with filters.
- MODULE 3 :** Convolution Neural Network CNN Intro CNN essentials, CNN Architecture, work flow of image classification with CNN
- MODULE 4 :** Case Study: Keras-Tensorflow image classification CNN hands on application for classification images of Cats and Dogs

ARTIFICIAL NEURAL NETWORKS

MODULE 1 : Theory of Ann

MODULE 2 : Mathematics of Ann

MODULE 3 : Ann coding part

MODULE 4 : Gradient descent optimizer applications and mathematics

MODULE 5 : Optimisers

MODULE 6 : Activation and loss functions

MODULE 7 : Convolutional neural networks theory and code

TENSORFLOW

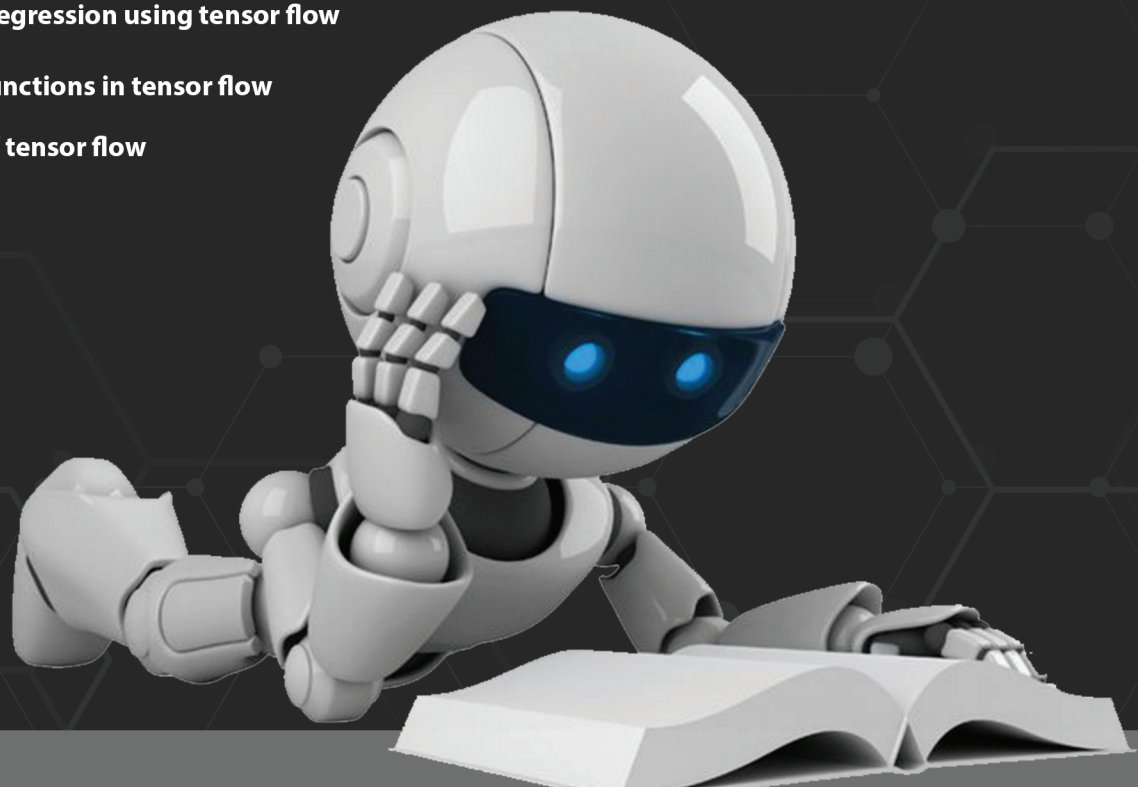
MODULE 1 : Basics of tensorflow

MODULE 2 : Linear regression using tensorflow

MODULE 3 : Logistic regression using tensor flow

MODULE 4 : Numpy functions in tensor flow

MODULE 4 : Theory of tensor flow



WHY DIGITAL MARKETING IS FOR YOU



01

Digital Marketing does not restrict you to one specific job profile. According to NASSCOM, Digital Marketing has job scope in not just traditional companies, but IT and KPO companies too. Even overseas clients outsource the digital marketing to back offices.

If you're an **ENTREPRENEUR**, you can efficiently employ Digital Marketing to expand their businesses. With Digital Marketing, you save money and time, target specific customers, and put yourself on the map right alongside the big guns !

02

03

As **WORKING PROFESSIONAL**, you can enter this highly lucrative field and gain an edge over your peers. Embelish your resume and explore the endless possibilities in the lucrative world of Digital Marketing.

As a **STUDENT**, you can be a step ahead and prepare yourself for a versatile range of jobs the with a digital marketing course. You can also apply Digital Marketing to any business idea you pursue!

04

05

You can practice Digital Marketing as freelance work. If you're a working professional or a student, **FREELANCING** digital marketing services will help build your skills, boost your experience, and earn additional income in your spare time

PROGRAM PEDAGOGY



1

CLASSROOM LEARNING

We offer on-premise sessions in classrooms, structured by our expert faculty and industry professionals from the field of analytics. With our program's quality and industry's business relevance we ensure you get an unmatched experience.

2

ONLINE VIDEO LECTURES

We give access to an online LMS that hosts the content (classroom recordings, discussion forums, assignments, reading material etc). Our live webinars help you continue learning at your own time.

3

DAILY HANDS-ON ASSIGNMENTS

Our program is designed to transform our students into career-ready professionals through hands-on learning on relevant tools. With daily exercises and hands-on assignments, we ensure you get only the best practice sessions.

4

INDUSTRY PERSPECTIVE MEETS

We give our students opportunities to attend and speak at meets and seminars hosted by Analytixpro. You get a chance to interact with eminent professionals from the industry, and assimilate the best practices discussed by the experts in their lectures.

5

CAPSTONE PROJECTS

We provide our students an opportunity to pursue application-oriented capstone projects in the domain of their choice. With guidance and evaluation from industry professionals, we ensure you get a comprehensive learning experience.

6

FLEXIBLE TIMING

Our program includes 3 months (1.5 hrs a day) of classroom sessions. We design our schedule to incorporate your routine. With classes in the morning, evening, or on weekends, we ensure minimal disruption of your work schedule. You can also opt for the intensive, 1-month boot camp (5hrs a day) with 8 more weekends for projects and review sessions.

CAPSTONE PROJECTS

Actionable Insights for Improving Sales

Linear Regression,
Time Series
Forecasting

Product Reviews Classification

Natural Language
Processing,
Natural Language
Understanding

Self-Driving Car

OpenCV,
Convolution
Neutral Network

Cancer Detection

Classification,
Convolution
Neural Network

Users Ads Click Prediction

Market Basket Analysis
Brand Loyalty
Analysis

Movie Recommendation System

Auto encoders,
Boltzman
MACHines

Customer Retention

Churn Modelling,
Logistic Regression,
Neural Network,
Boosting,
Random Forest

Prescription Volume Prediction

Logistic Regression,
XGBoost,
Random Forest

Predicting Stock Price using People Sentiment

Natural Language
Processing, Time Series
Forecasting,
Recurrent

Machine Learning, Deep Learning, Natural Language Processing, Product Recommendations, Chatbots, Virtual Assistants, Churn Modelling, Time Series Forecasting, Robotics and IoT with AI, Image Classification, Speech Recognition, Medical Diagnosis, Statistical Arbitrage, Learning Association, Fraud Detection etc.

Choose Your Own

Choose your own project to work on, in the domain of your choosing. Get support from both our full-time trainers and part-time trainers who are specialized in their own particular areas of data science.

OUR EXPERTISE

Our expert trainers help with upskilling the concepts, to complete the assignments and live projects. They possess extensive real time experience and are passionate. The dedicated team helps to complete and evaluate the assignments.

The training is provided till you master the concepts or secure a job. You will be provided an end-to-end placement assistance.


Our experts provide an introduction to product management for AI and Data Science which furnishes detailed knowledge about product management. The Key Technological Concepts for AI & Data Science, the distinguish

between data analysis and data science, how an algorithm differs from AI, machine learning vs deep learning methods, Business Strategy for AI & Data Science, to mention a few will be dealt with.



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