

# 12 MONTHS EXECUTIVE DATA SCIENCE

PROGRAM





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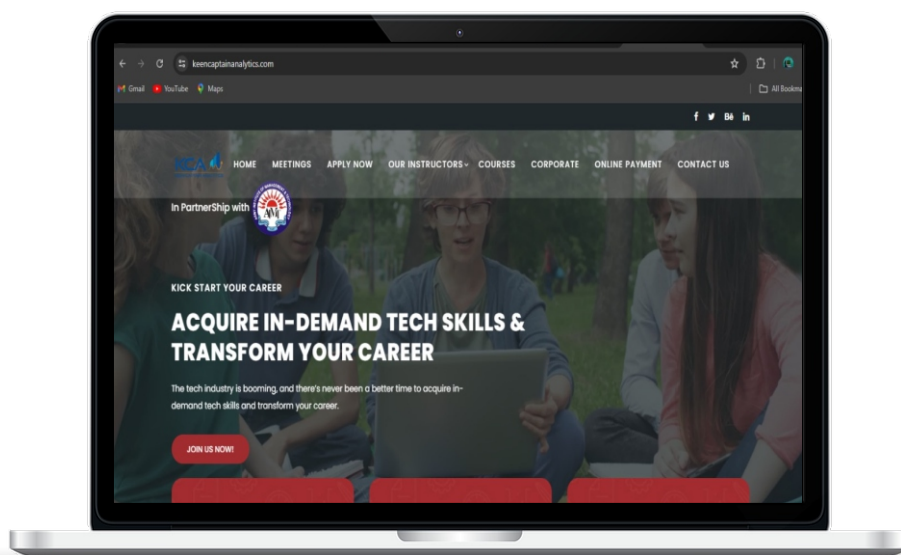


## About Keen Captain Analytics

Over the past decade, data science advances have transformed how businesses operate. Enterprises that are slow or reluctant in embracing this Data Revolution are facing an existential crisis. Today's enterprises need more and more data professionals to help them stay relevant. But unfortunately, this has fueled an ever-widening gap between available jobs and the talent pool that's not growing fast enough. And to add to this, the Data Science landscape is changing so fast that conventional education can't match up. Today's Data Science job requires much more than a set of crammed concepts, it demands creativity, problem-solving, and never-ending enthusiasm for a given subject. The curriculum and courses crafted by our age-old educational institutions are helpless with this modern-world requirement

## Key Features

- ✓ 200+ Hours of Instructor-Led Training
- ✓ Dedicated Career Coach
- ✓ 50+ Hours of Self Paced Training
- ✓ Professional Certification Program
- ✓ 150+ Exercises and Assessment
- ✓ 24/7 Support



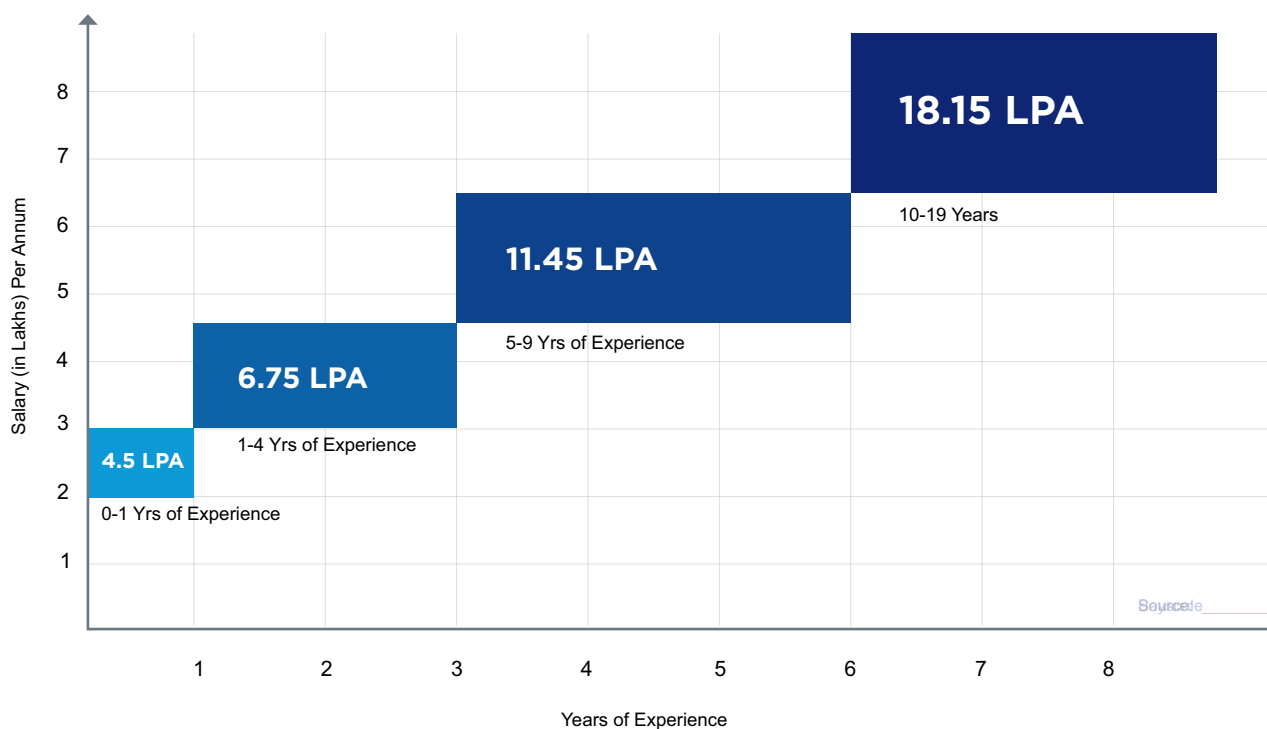


## About the course

This Data Science Career Bootcamp offered by KCA is an eight month comprehensive Career Bootcamp focusing on fast-tracking your career in the field of data science. You will be trained by data science experts and will apply learning through industry-relevant projects. You will gain access to resume building, 1:1 mentorship sessions and mock interviews to help you crack your dream job. The program is based on an applied learning approach that uses a combination of self-paced videos, live virtual classes, and hands-on projects.



## Careers in Data Science



Some of the job roles associated with Data Science include Data Analyst, Data Science Generalist, Data Scientist, ML Analyst, ML Engineer, ML Scientist, AI Analyst, AI Engineer, AI/ML Developer, Business Intelligence Analyst, Associate Data Scientist, Data Architect, Business Intelligence Developer, Deep Learning Engineer, Decision Scientist, Data Visualization Specialist, and many others.







## KCA advantage



Access to a variety of tools used in data science and hands-on training with many industry-relevant projects



AI-based feedback on resume preparation.



Interview-ready with 1:1 mock interviews and mentorship sessions



Access to the job board curated by KCA where you can apply for job openings





# Eligibility criteria and application process

## Who can apply?

Anyone with

- ✓ Hold an engineering or statistics degree or any of the MCA/ M.Sc (IT)/ MBA/ BCA/ B.Sc (IT) degrees
- ✓ 0-3 years of work-ex when you graduate from this program; 2020 and onwards graduates

## How to Apply? For the application process



### **Submit Application**

Submit the application with the required information to check the eligibility.



### **Application Review**

Our admission team will review your application & inform you if you can get enrolled for the program



### **Admission Rollout**

Secure admission by completing the payment and begin your journey to becoming a data science professional

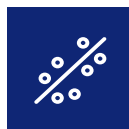


# Program Outcome

At the end of this program, you will be able to



Gain an in-depth understanding of data manipulation



Analyze data using linear and non-linear regression models and classification techniques



Understand supervised and unsupervised learning models such as linear regression, logistic regression, clustering, dimensionality reduction



Perform scientific and technical computing using the Pandas, SciPy, and StatsModels



Perform mathematical computing using the NumPy and scikit-learn packages



Analyze data using Tableau and become proficient in building interactive dashboards



Gain practical mastery of the concepts of recommendation engines and time series modeling over principles, algorithms, and applications of machine learning



Become interview ready with our comprehensive career services





# Learning Path & Career Services







## Phase 1 - Let's Explore the Foundations of Data Science

This course will equip you with basics of data science skills such as statistics essentials, mathematics. You will learn concept such as skewness, correlation, regression, and distribution, eigenvalues and eigenvector. Programming skills such as data types, variables, strings, loops, and functions such as multithreading and multitasking using Python, Pivots, and lookups in Excel and SQL



### Career Readiness Phase 1

In this module, you will get an opportunity to enhance your skills and move one step closer to kickstarting your dream career in data science with below activities:

#### Course Curriculum

- ✓ Aptitude test
- ✓ Webinar on communication preparation for interviews
- ✓ Webinar on professional networking
- ✓ 1:1 session on career choices - understanding learner interest
- ✓ 1 technical mock interview with feedback



## Phase 2 - Python Fundamentals

- ✓ Introduction to Python and Data Science
- ✓ Working with Python Data Structures
- ✓ Control Flow Statements
- ✓ Functions in Python
- ✓ File Handling in Python
- ✓ Regular Expressions





- ✓ Object Oriented Programming
- ✓ Advanced-Data Structures in Python



## Phase 3 - Data Analysis with SQL

- ✓ Introduction to SQL and MySQL
- ✓ Data Creation and Retrieval
- ✓ Data Filtering
- ✓ Data Analysis using aggregate functions and group by
- ✓ Joins and Keys
- ✓ MySQL Joins
- ✓ Subqueries and Views
- ✓ Window/Analytical Functions
- ✓ Case Study



## Phase 4 - Statistics and Probability

- ✓ Introduction to Statistics
- ✓ Probability Theory
- ✓ Statistical Inference I
- ✓ Statistical Inference II
- ✓ Regression Analysis I
- ✓ Regression Analysis II



## Phase 5 - Data Analysis with Excel



- ✓ Unleashing the Power of Excel
- ✓ Data Analysis with MS Excel
- ✓ Summarizing and Forecasting
- ✓ Macros and Dashboarding
- ✓ Excel Project Session



## Phase 6 - Python for Data Science Visualization

- ✓ Extracting and Aggregating Pandas
- ✓ Matplotlib and Seaborn
- ✓ Plotly and Cufflinks



## Phase 7 - Data Cleaning and Preparation

- ✓ Introduction to Data Cleaning and Data Types
- ✓ Exploring and Visualization the missing values
- ✓ Advanced-Data Cleaning Concepts
- ✓ Introduction to Feature Engineering
- ✓ Feature Extraction and Transformation
- ✓ Feature Selection and Dimensionality Reduction



## Phase 8 - Machine Learning (scikit)

- ✓ Modeling with Linear Regression
- ✓ Evaluating Models & Feature selection



- ✓ Regularisation Techniques
- ✓ Modeling with Logistic Regression
- ✓ Understanding other classification algorithm like KNN & SVM
- ✓ Advanced Model Evaluation Techniques
- ✓ Introduction to Clustering and K Means
- ✓ Advanced Clustering Techniques



## Phase 9 - Tree Based and Boosting Models

- ✓ Introduction to Decision Trees
- ✓ Implementation of Decision Trees
- ✓ Introduction to the Concept of Bagging
- ✓ Introduction to Concept of Random Forest
- ✓ Introduction to Boosting
- ✓ Introduction to extreme Gradient Boosting
- ✓ Introduction to Imbalanced Machine Learning models
- ✓ Introduction to Recommendation Engines



## Phase 10 - Time Series Analysis and Forecasting

- ✓ Introduction to Time Series Analysis
- ✓ Preprocessing and Visualization of Time Series Data
- ✓ Time Series Forecasting using ARIMA
- ✓ Exponential Smoothing Models for Time Series Forecasting





## Phase 11 - Natural Language Processing

- ✓ NLP Fundamentals
- ✓ Feature Engineering in NLP & Text Classification
- ✓ Advanced-Data Cleaning for NLP text classification
- ✓ Feature Extraction & Feature encoding for NLP
- ✓ Introduction to Word Embeddings
- ✓ Advanced word embeddings used to solve NLP problems
- ✓ More about advanced NLP
- ✓ NLP text classification end to end project from kaggle



## Phase 12 - Deep Learning Fundamentals

- ✓ Building blocks of Deep Learning
- ✓ Understanding the Components of a Neural Network
- ✓ Introduction to Recurrent Neural Networks
- ✓ Overview of LSTM and GRU
- ✓ Introduction to Bidirectional Networks
- ✓ RNN Use Cases in the Industry
- ✓ Introduction to Convolutional Neural Networks (CNN)
- ✓ Overview of Transfer Learning
- ✓ Introduction to Transformers
- ✓ Overview of AutoEncoders



## Internship Program



- ✓ Integration with Python and SQL
- ✓ Types ML Model Evaluations
- ✓ Web Scrapping
- ✓ Introduction to Big Data
- ✓ Data Cleaning with Excel and Python
- ✓ Big Data Proccession with Spark
- ✓ Data Visualizing with Python
- ✓ Model Deployment in Cloud Service
- ✓ Data Visualizing Tools (Power BI)
- ✓ Internship Project-2 (Main Project)
- ✓ Types of Machine Learning Models
- ✓ Submission & Graduation Ceremony
- ✓ Machine Learning Model Selections



## Soft Skills Program

Technical skillset and your soft skills combine to make you employable. In order to make our learners employable, dedicatedly placement-oriented sessions are conducted while highlighting the use of Github, Linkedin, and other tools during the job search.

- ✓ Building A World-Class Resume
- ✓ Effective Job Search
- ✓ Networking via Linkedin
- ✓ Writing Mails and Cover Letters
- ✓ Github for Professionals
- ✓ Interview Skills



## ELECTIVES PROGRAM



Select any one elective from list mention below

### Business Intelligence Tool (Power BI / Tableau)

- ✓ Data loading and transformation with Power Query.
- ✓ Data visualization with charts, including various chart types.
- ✓ Tabular visualization with Power Pivot and matrices. Creating interactive dashboards.
- ✓ Using conditional formatting for enhanced data analysis.

### Deep Learning with Computer Vision

- ✓ Introduction to Deep Learning and Computer Vision.
- ✓ Artificial Neural Network and Convolution Neural Network.
- ✓ Artificial Neural Network and Convolution Neural Network.
- ✓ Transfer Learning.
- ✓ Object detection and object localization.

### Deep Learning with NLP

- ✓ Introduction to NLP & Text Preprocessing
- ✓ Text Cleaning and Mining.
- ✓ RNN, LSTM, Resnet, GRU.
- ✓ Advance NLP Models Transformer and GPT-3.





# Certificates

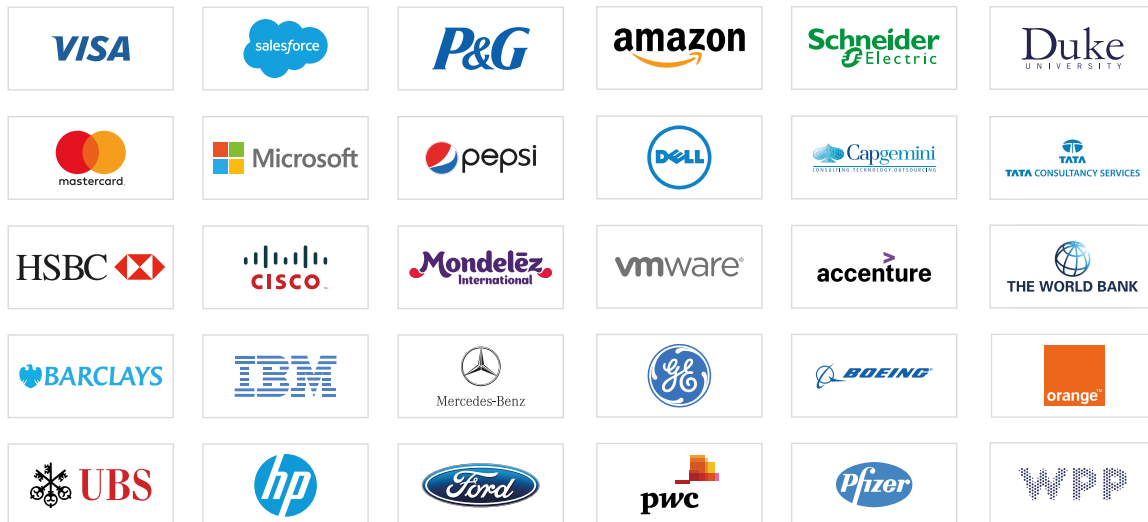


Upon completion of this Master's Program, you will receive the certificates from KCA in the Data Science courses in the learning path. These certificates will testify to your skills as an expert in Data Scientist. Upon program completion, you will also receive an industry-recognized Master's Certificate from Keen Captain Analytics.



# Corporate Training

Top clients we work with:



Features of Corporate Training:



Tailored learning solutions



Flexible pricing options



Enterprise-grade learning management system (LMS)



Enterprise dashboards for individuals and teams



24X7 learner assistance and support



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