



Elective No. 1

# Sales, Marketing & HR Domain

*Domain Specialization & Project Expertise*



**Domain Specialization elective :**

## **In Sales, Marketing & HR**

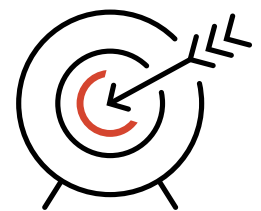
- ✓ Learn how to succeed in an increasingly competitive market with advanced tools and technology by using proven methodology.
- ✓ Master your data analysis skills and create a dynamic dashboard to describe your insights
- ✓ Develop leadership skills by gaining a better knowledge of data and making more informed choices regarding prospects, customers, product lines, market opportunities, and team performance.



**6 Industry  
Relevant Projects**



**20+ Case Studies &  
Assignments**



**100% Interview  
Guarantee**



# Elective Details

*The fields of data science and artificial intelligence use a wide range of approaches, including statistical analysis, modelling, machine learning, and data mining, to help us forecast the future.*



## Who should join?

- Executive-level marketing and Human resource professionals or consultants, dreaming of securing a position at the forefront of marketing/ sales/ recruitment practices to add value to both their career and organization.
- Managers and leaders associated with marketing and people management want to incorporate future proof and data-driven newfangled practices into the existing business operations.



## Why domain specialization?

- Data science skill efficacy is all about using your domain-specific knowledge in a balanced way using data-driven methods.
- As a result, if you don't have domain expertise, your data science abilities are useless.
- Even so, these are the main reasons why experienced workers seeking career changes are in greater demand.

### Course Pre - requisite:

Professionals having 1+ year of experience in either Sales, Marketing or Recruitment domain. Or non-marketing professionals interested in learning about the newest marketing technology, data analyst and business analyst techniques that drives strategic development.

**NO background in programming or statistics required.**

# Tools & Modules

## TERM 1 & 2



**Python**



**Statistics**



**Machine Learning**



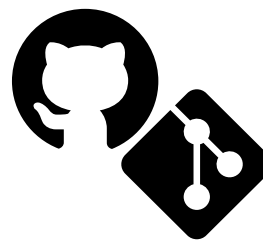
**Deep Learning (Tensorflow)**



**Time Series Analysis & Forecasting**



**Natural Language Processing**



**Git & GitHub**



**R Programming**

## TERM 3 & 4



**SQL for Data Science**



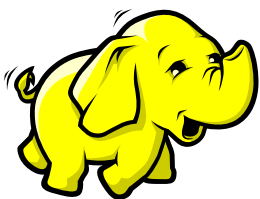
**Tableau**



**Power BI**



**Mongo DB**



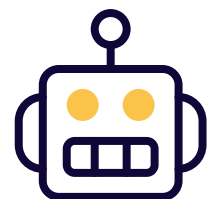
**Hadoop**



**Apache Spark**



**Google Cloud**



**Advance AI**

# Transition Process

100% Job Referral Guarantee

Work on Real Time Projects and **Domain Specific** Capstone project

Analyze your knowledge and interest towards any 2 domain from **Domain Electives**

Complete **General Program** (Term 1 to 4)  
Core + Advance Modules & Tools

[Main Brochure](#)

**Job Preparation**  
(Resume Build- Up,  
Mock Interview, Job Referrals)

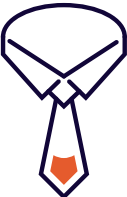


# What will you learn?

The elective covers various marketing and sales data analysis tools and ideas, but the core learning goal focuses on real-time industrial utilization and enforcement. It explains trending and future proof applications of analytics in different marketing and sales practices with such a bottom-up approach that helps the non-mathematicians and everyday statistical data analysis experts easily comprehend.

- Ready-to-use practical analytical tools and the core working concepts behind the same are imparted to students who take this module.
- You will also learn about Talent analytics maturity model, Use of Analytics in Recruitment, Retention and how it can be improved with the help of Data Science.

**Domain Specialization**  
In Sales, Marketing &  
HR Domain



**Project Life Cycle Expertise**  
with 2 Capstone Projects

### Module 1 : Introduction to Marketing and Sales Domain

In this introductory session, you will gain knowledge on the primary digitized sales and marketing sector. We'll be looking at the marketing and sales processes of several top-notch organizations.

The fundamental goal of this module is to make the student understand the scopes of data analytics in marketing and sales practices and make them aware of fundamental theories and terms used in both domains.

Finally, we will conclude with a brief overview of several career options in sales and marketing. This module will cover the following.

- Theories of pricing
- Process of customer needs identification, etc.
- Theories of productivity enhancement
- Salesforce management.
- Brand management
- Relationship between Big Data and sales & marketing

### Module 2 : Basics of Digital Marketing

- Search Engine Optimization
- Social Media Marketing
- Content Marketing
- Email Marketing
- Pay-per-click advertising
- Mobile Marketing

### Module 4 : Advanced Knowledge on Web Analytic including Clickstream data and tagging

This module will help you to learn more about data collection and data handling. With the core concepts as well as practical studies of data mining and database management. At the end of this module, you will be able to apply your data-driven knowledge on

- Analytical customer segmentation based on touchpoint engagement, purchase pattern (time series analysis and forecasting)

### Module 3 : Introduction to Marketing analytics

- Market mix model
- Matrix analysis- Reach, Frequency and engagements, conversion rate, ROI
- Performance analysis of marketing campaigns
- Advanced web analytics
- Google Analytics
- Application of data visualization
- Video report generation
- Social media analytics

- Identification of upcoming customer churns and respective precautions
- Real-time predictive analytics on customer behavior, bringing the right product at the right time and target marketing.

*And every solution will be through ML studies (machine learning algorithms, models and tools). The crucial concept that will be used in this module is NLP.*

### **Module 5 : Sales Pipeline analysis/ sales performance analysis- the betterment of cross-selling, upselling and improvement of CLV**

This module will help you to learn the strategies of working with categorical data. In addition, this module will include training on dashboard creation, graphical representation, using tools like Seaborn, Matplotlib, etc.

This module includes human emotion analysis and text mining techniques to analyze customer sentiments to create USPs.

Moreover, you will be trained on the data analytics related to personalized cross-selling recommendations.

Besides, you will learn the data-driven identification of customer loyalty analysis to foster future sales. This will also help in lowering the fraudulent activities of customers.

Tools covered:

- Keras
- Hadoop
- MongoDB
- Pytorch
- TensorFlow
- Seaborn
- OpenCV, etc

### **Module 6 : Implementation of automation and security in sales**

This module allows you to mechanize all your tedious and critical sales tasks with the help of data-driven techniques, AI tools, business intelligence software, and machine learning approaches.

The skill you earn from this module will help foster your productivity with

- improved degrees of accuracy,
- generate consistent sales data across the organization through cloud deployment of ML,
- and reduce customer query response time with deep learning assisted automated chatbots.

### **Module 7 : AI-Based optimization of sales channel**

This module will allow you to implement AI-based sales channel optimization. The key focus of the ML algorithms generated at these modules will be on live analysis and insight generations of the geographical, time variable, and cross-platform customer buying behaviors- So that you can come up with easy and human interference-free cross channel sales profit management.

This module will help you to dive deeper into the EDA and complex machine learning algorithms like KNN, XGboost, etc.



### **Module 7 : Introduction to HR Domain**

In this introductory session, you will gain knowledge on digitised human resources and the people management sector. You will get introduced to the basic knowledge of HR processes, analytical practices for people management followed in world-class companies. The foremost goal of this module is to make the candidates aware of the available and upcoming scopes of data science career switch within the HR domain.

- Theories of organisational development based on analytics
- Strategies of HR leadership in a data-driven way
- The digitised people management process
- Importance of data analytics in people management

### **Module 8 : Introduction to HR analytics**

- Turnover
- Recruitment
- Relevant and high-quality data collection and filtration process
- Employee engagement and employee satisfaction
- Understanding of the core process of HR analytics
- Basic use of cloud-based systems.
- Use of social media analytics to handle employee dissatisfaction effectively.

### **Module 10 : Understanding of core analytical approaches of Attrition and Increasing Retention, increased retention, salary decisions and promotional information.**

You will be able to develop several AI-powered gamification apps for your company that will help in the live measurement of employee engagement, efforts, and productivities but in an employee-friendly manner.

This module also includes tool-based training on dashboard designing, graphical analysis, using tools like Seaborn, Matplotlib, OpenCV, etc. You will be able to implement better employee support by deploying several machine learning models that help in emotion-based analytics of employee engagement, job satisfaction, etc.

Besides, you will learn about the basics of Big Data Technology and its use in the HR domain via tools like Hadoop and MongoDB.

### **Module 9 : Implementation of automation in people management**

This module allows you to automate all the time-consuming HR processes related to employee onboarding, lever request approval, leave calculations, performance management, exit interviews, etc.

You will learn the strategies of using deep learning and NLP technologies to automate the above processes. At the end of the modules, you will be able to deliver human interference-free but highly precise

- Actionable insights
- Risk mitigations
- Omni-channel assessment.

## Controlling Churn

### Sales Domain



It is essential for salespeople to anticipate client purchases, and analyze the pattern of customer turnover or attrition in order to enhance company.

ML algorithms identify patterns in attrition customers' behavior, communication, and ordering, allowing businesses to better understand the causes of attrition and forecast consumers who may quit purchasing.

These insights provide important input for businesses looking to enhance their operations and reduce client turnover.

## IBM HR Analytics

### HR Domain



Applying analytic processes to the human resource department of an organization in the hope of improving employee performance and therefore getting a better return on investment.

This is especially concerning if your business is customer facing, as customers often prefer to interact with familiar people.

## Interactive analytics & real-time interaction

### Marketing Domain



Real-time analytics allow companies to track and analyze consumer activity in real time, delivering valuable, actionable information at a crucial point in the customer conversion process.

It also enable for a quicker reaction time when your target market changes, saving you money and reducing unnecessary advertising in the long run.

Real-time analytics can be used in marketing for delivering targeted offers and incentives to suitable consumers in-store or online; and analyzing customer behavior to determine when and why sales are lost or made.

## Analysis of the market basket

### Marketing Domain



Market basket analysis describes the methods for unsupervised learning that are used to collect and classify patterns of purchases, as well as to identify the connections between items.

These methods may be used to forecast future purchasing choices.

Market basket analysis is useful for marketing message efficiency. Additionally, you may provide the next most appropriate product for a specific client.

# Project Work

## Keyword Generation for social media ads



### Marketing Domain

In this project, we will generate new but insightful keywords for target marketing campaigns in social media.

You must advertise your product and primarily concentrate on bringing the appropriate person to the correct page, via the proper message or expectation, in order to be particular and relevant to consumers.

## Model development of talent analysis



### HR Domain

This project involves segmentation, statistical analysis, and the formation of models. For statistical analysis, a large quantity of HR data is integrated, including demographics, performance and hiring data, financial and operational data. You can get solutions to your most pressing concerns.

This response may lead to actionable choices for your business. Which aids in recruitment, top-performing hire prediction, retention, sales team productivity management, succession planning, pay-for-performance and engagement chat.

## Content strategy



### Marketing Domain

Even minor things like word choice and color may be tested serially. By predicting when these creative decisions will be most successful across all platforms, optimize content in front of the right people & time using time-series forecasting.

## Resume Parsing



### HR Domain

Recruiters and HR departments in businesses have to sift through thousands of qualified applicants. Either they require a large number of employees to complete this task, or they will miss out on qualified individuals.

Our resume parser application can take in millions of resumes, parse the required fields, and categories them to address this problem. For OCR and text classifications, this resume parser makes use of the popular Python module Spacy. We first use these fields to train our model, and then the program can recognize the values of these fields in new resumes.

## Sales Prediction



### Sales Domain

Big-Bazaar will use this machine learning model to try to understand the qualities of products and stores that are important in improving sales. Certain characteristics of each product and retailer have been determined. The goal of this machine learning project is to create a predictive model and determine how much each product sells in a specific retailer.

## + Can I select multiple domain electives?

- You can select multiple electives based on your career goal and work experience/academics.

## + What if I don't have any prior experience in any domain?

- Even if you don't have any prior experience, you can still opt for any elective to gain Domain Expertise and work on Real - Time Industrial Projects.

## + Can I change my domain electives later ?

- Yes, you can change your elective or repeat the training later within the Course Accessibility Duration.

## + Are there any additional charges for electives?

- No, there are no additional/ hidden charges.

## + How many capstone projects do I need to work?

- You can work on all projects, or depending on your experience and goal. For eg, Having 1-2 yrs of experience you must work on 4-5 projects.

**Note:** We keep updating trending projects and case - studies as per the market/company requirement. You can also Bring your own project.



Stay updated with newest content (Infographics, Interview Q&A, Job Updates and more) on Data Science and AI.



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