

Postgraduate Program in Data Science and Analytics

300+ learning hours
25+ projects
10+ tools



Tools & Technologies covered:

- Python
- SQL
- Power BI
- Tableau
- Scikit-learn
- Hadoop
- Spark
- Excel



INDUSTRY OVERVIEW

The global data science platform market is growing due to advancements in big data technologies, a focus on gathering and analysing data for decision-making, and an increase in dependence on machine learning.

The adoption of data tools and technologies is contributing to business growth across the globe. The number of jobs requiring Data Science skills is expected to grow by 27.9% by 2026, according to the US Bureau of Labour Statistics.

As businesses continue to rely on the power of data, the need for skilled data scientists is also increasing.



There were over
17.9k
open jobs
in data science
in April 2022



Analytics jobs
increased by
30.1%
in 2022



Almost
one out of three
open jobs are
for engineering
undergraduates



POSTGRADUATE PROGRAM IN DATA SCIENCE AND ANALYTICS

With the rising demand for data science professionals, Imarticus Learning is pleased to introduce the **job-assurance** Postgraduate Program in Data Science and Analytics.

Featuring custom learning modules, this **6-month program** will help you learn data science and analysis from the ground up.

The program helps learners to master Data Science and write complex Machine Learning algorithms to solve real-world business problems.



For fresh graduates
with less than
3 years of experience



Project-based
learning



Job
assurance



Build a career in data science & work in roles like:
**Data Analyst, Data Scientist, Business Analyst,
Machine Learning Engineer, etc**

WHY JOIN THIS PROGRAM?

100% Job Assurance Program

Our program comes with a 100% guarantee! Prepare to be hired by one of our more than 500 top-tier partner companies that employ data scientists and analysts. Every step of this program is designed to help you land your dream job as a data scientist.



1500+
students placed

500+
Hiring Partners

22.5 LPA
Highest Salary

52%
Average salary hike

TOP RECRUITERS



TOP JOB ROLES

Data Scientist

Machine Learning Engineer

Data Engineer

Data Science Consultant

Data Analyst

Tableau Developer

Business Intelligence Specialist

Business Analytics Professional

Business Analyst

PowerBI Developer



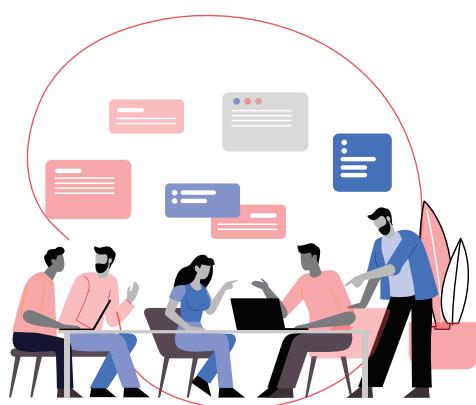
Dedicated Career Services:

Get all required support to prepare for placements. Career Services include resume-building, profile enhancement, placement preparation workshops, mock interviews, one-on-one career mentoring with industry experts and much more. We focus on every individual to enable them to crack interviews.



Job-focused curriculum with Specializations:

Grasp crucial data science and analytics concepts and learn the most in-demand data science tools and techniques to make yourself job-ready. Master the skills of Python, SQL, Data Analytics, Machine Learning, Powe BI & Tableau. Specialised tracks to focus on particular data science job roles – Data Scientist, Data Analyst, Business Analyst, etc.



Live learning and peer discussions:

Learn effectively through live lectures (classroom or online depending on the batch selected) where the faculty will help you build data science foundations and practice 25+ real-world projects. All your queries will be resolved in real-time. You will participate in multiple discussions with your peers and learn from their experiences. We will support you closely throughout the program.

Data Wars Hackathon and Data verse Project Competition

Participate in hackathons and competitions organised by our Analytics Centre of Excellence. Winners can highlight their accomplishment in their profiles attention of potential employers. You'll also get the chance to enter your data science project in our national competition and demonstrate your abilities.

LEARNING JOURNEY

01 START

02



BASIC FOUNDATION TRAINING

Online Live Training

2 weeks

- Live sessions with faculty
- Doubt resolution
- Programming Practice
- Assessment

04 CORE TRACK ENDS

03

CORE TRACK

Classroom/ Online Live Training

★ ATTEND BOOTCAMP ON DATA SCIENCE FUNDAMENTALS

4 weeks

- Live sessions with faculty
- Doubt resolution
- Discussions with peer learners
- Hands-on exercises
- Assignments
- Quizzes
- Exam
- Mock Interview

★ ATTEND BOOTCAMP ON MACHINE LEARNING, AI & DATA VISUALIZATION

6 weeks

- Live sessions with faculty
- Doubt resolution
- Real-world projects
- Discussions with peer learners
- Assignments
- Quizzes
- Exam
- Mock Interview

05

ATTEMPT PRE-PLACEMENT ASSESSMENT FOR SPECIALIZATION

★ ATTEND BOOTCAMP ON SPECIALIZATION 1 - ADVANCED ML TRACK

4 weeks

- Personalized project sessions with experts
- Project Assignments
- Live sessions with faculty
- Exam
- Mock Interview

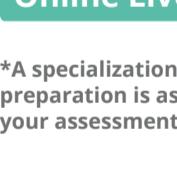
or

★ ATTEND BOOTCAMP ON SPECIALIZATION 2 - DATA ANALYTICS & ML TRACK

4 weeks

- Personalized project sessions with experts
- Project Assignments
- Live sessions with faculty
- Exam
- Mock Interview

06



SPECIALIZATION (PLACEMENT) TRACK STARTS

Online Live Training

*A specialization track for placement preparation is assigned based on your assessment score

07

CAPSTONE PROJECT

08

PARTICIPATE IN DATA SCIENCE HACKATHON & PROJECT COMPETITION

10

SPECIALIZATION TRACK ENDS

09

PREPARE FOR PLACEMENT OPPORTUNITIES

11

PARTICIPATE IN PLACEMENT DRIVES



12 GET A DATA SCIENCE JOB

CURRICULUM

FOUNDATION MODULE

Basic Programming

The module covers the basics of programming for non-programmers. Learn programming concepts and implement those concepts to write efficient code. Get introduced to Lists and OOPS concepts.

What will you achieve?

- Build a solid foundation for programming
- Practice coding skills with 20+ coding questions

Topics

- Introduction to Programming
- Variables & Arithmetic Expressions
- Functions
- Data Types
- Conditions & Conditional statements
- Lists
- OOPS

CORE TRACK

Module 1 – Excel

The module covers the basics of Excel for data science. Learn Excel essentials to get a strong hold on using Excel for data analysis. Get introduced to pivot tables, formulae and charts.

What will you achieve?

- Build a strong foundation of Excel for data analysis
- Summarise data with pivot tables and charts

Topics

- | | |
|--------------------|----------------|
| • Excel Basics | • Charts |
| • Excel Essentials | • Pivot Tables |
| • Formulae | • Lookup |
| • Data Analysis | |

Module 2 – SQL

The module introduces learners to SQL programming. Learn how to query data from databases and create datasets for data analysis.

What will you achieve?

- Build a strong foundation of SQL for data querying
- Create datasets for data analysis

Topics

- DDL, DML, DQL statements
- Aggregate, Date Functions
- Union, Union All & Intersect Operators
- Joins
- Views & Indexes
- Sub-queries

Module 3 – Python Programming

The module introduces the learners to Python programming. Work with multiple Python data science libraries to execute essential tasks like mathematical calculations, data manipulation, etc. Learn data visualisation with Python.

What will you achieve?

- Master Python programming
- Run data analysis process using Python libraries
- Create useful charts for data visualisation

Topics

- Python Objects, List
- Functions
- Numpy
- Pandas
- Data Frame Manipulation
- Data Visualization
- EDA

Module 4 – Statistics for Data Science

The module introduces the learners to statistics. Review, analyse, and draw conclusions from data. Apply quantified mathematical models to appropriate variables for data analysis.

What will you achieve?

- Build a strong statistics foundation
- Analyse data and draw conclusions using statistics
- Implement mathematical models for data analysis

Topics

- Introduction to Statistics
- Probability Theory
- Probability Distributions
- Hypothesis Testing
- Statistical Tests

Module 5 – Machine Learning

The module introduces the learners to machine learning and explains how different ML algorithms work. It also covers the optimisation of models and model tuning. Get a complete understanding of how organisations are applying ML to solve their problems and grow the business.

What will you achieve?

- Learn machine learning algorithms & their applications
- Analyse data and make predictions
- Solve real-world business problems using ML

Topics

- Introduction to Machine Learning
- Types of Machine Learning
- Linear Regression
- Optimization Techniques
- Gradient Descent
- Logistic Regression
- Model tuning
- Decision Trees
- Random Forests
- K-Means Clustering
- Hierarchical Clustering
- Principal Components Analysis (PCA)
- Time Series

Module 6 – Data Visualisation with Tableau & PowerBI

The module covers data visualisation with two popular business intelligence tools - Tableau and Power BI. Create charts to articulate data and present insights to the business. Learn to showcase a data-based story to the stakeholders.

What will you achieve?

- Master data visualisation with Tableau
- Master data visualisation with Power BI
- Create meaningful dashboards for the business

Topics

- Introduction to Tableau
- Tableau Interface and Chart Types
- Visual Analytics with Tableau
- Dashboard and Stories
- Power BI Interface
- Data Transformation
- Data Modelling
- Visual Data Analytics with Power BI

SPECIALIZATION

Module 7– Specialisation 1 – Advanced ML Track

This module focuses on preparing the learners for placement based on their capability and performance during the course. Work on multiple projects with Project Mentor to sharpen your ML skills. Learn advanced ML concepts and AI fundamentals to enhance your profile.

What will you achieve?

- Sharpen ML skills through projects
- Learn advanced ML skills
- Get introduced to AI

Topics

- ML Algorithms - Ensemble, Bagging, Boosting, KNN, SVM
- Advanced ML - Naïve Bayes, Recommendation Engine
- Introduction to Neural Network and AI
- Computer Vision
- NLP and Text Analytics

Module 7- Specialisation 2 – Data Analytics & ML Track

This module focuses on preparing the learner for placement based on their capabilities and performance during the course. Work on multiple projects with a Project Mentor to sharpen your data analytics and ML skills. Learn big data analytics with Hadoop & Spark to enhance your profile.

What will you achieve?

- Sharpen ML skills through projects
- Learn big data analytics with Hadoop
- Execute machine learning with Spark

Topics

- ML Algorithms - SVM, Association Rules
- Practice Projects on ML
- Big Data & Hadoop Framework
- Machine Learning with Spark
- Advanced SQL

Module 8 – Capstone Project

Build a data science project on your own by applying the learning from the bootcamps. Learn planning the project and implementing it successfully. Present your project to a team of evaluators from the industry and get valuable feedback. Add the project to your GitHub project portfolio.

What will you achieve?

- Learn to plan a data science project
- Solve a real-world problem using data science
- Gain confidence on your skills by presenting the project to industry experts

Skills

- Combination of all skills learned throughout the course
- Project Presentation Skills

Module 9 – Career Services

Prepare for interview opportunities by polishing the key skills. Get support to create your digital profile and resume. Sharpen your interview skills through interview preparation workshops and expert-based mock interviews. Resolve your career-related queries through a mentorship session. At the end of the module, you will be ready for real interviews.

What will you achieve?

- Build an exciting resume and digital profile for recruiters
- Sharpen your interview skills with mock interview sessions
- Resolve any career-related queries to have clarity and confidence

Skills

- Resume Building
- GitHub Project Portfolio
- Interview Preparation Workshops
- Mock Interviews
- Career Mentorship

PROJECTS:



Targeted Marketing

Segment your customers to design the right promotional campaigns based on social data.

Learn how marketing teams use analytics for campaigns.



Heart-disease Prediction

Build a predictive model to analyse if a person suffers from heart disease.

Learn how analytics is used by healthcare professionals and hospitals.



Vaccine Prediction

Predict if an individual has been given a particular vaccine based on various medical attributes.

Find out how hospitals and healthcare professionals use analytics.



Taxi-fare Prediction

Predict taxi fares in a busy city using various journey-related attributes.

Learn how predictive analytics is used by online transportation companies like Ola and Uber.



Climate Change Analysis

Perform in-depth analysis to study climate change over the years.

Learn how researchers use analytics for environmental studies.



Product Pricing

Before introducing a new product, determine the pricing points for mobile phones that consumers will accept.

Find out how retail businesses establish their product prices.



Property Value Prediction

Create a predictive model to calculate property values.

Find out how real estate firms use analytics.



Vehicular Performance Prediction

Predict vehicular performance of heavy vehicles based on data collected from sensors of the vehicles.

Learn how analytics is used by automobile and transportation companies.

TOOLS & TECHNOLOGIES



THIS PROGRAM IS IDEAL FOR:



Fresh graduates or postgraduates with at least 50% marks in graduation:

Engineers, Computer Science/IT graduates, Mathematics/Statistics/Economics graduates, MBA – Finance/IT.

Working professionals with 0-3 years of experience:

Software Developer, Tester, QA, Networking professional, System Admin, Product and Program management professional, IT Tech Support professional.

*Current CTC should be below 4 LPA



MEET THE FACULTY



**Mr. Arul
FRANCIS**

40 under 40 Data Scientist 2022

12+years

Skills - Analytical, project management, association-building

Arul's dynamic career spans over 12+ years in Analytics. His expertise includes good analytical, project management, and association-building skills. In addition, he is a strategic thinker and a quick learner who can come up with several solutions to solve problems using analytics. He also assists the senior management in his organisation with business development.



**Mr. Arun
Kumar**

Skills - Automation, Machine Learning (ML), Natural Language Processing (NLP), and Artificial Intelligence (AI)

Arun's tech expertise includes working in Digital technologies, including Automation, Machine Learning (ML), Natural Language Processing (NLP), and Artificial Intelligence (AI). He holds experience in Banking, Insurance, Healthcare, and E-commerce domains. He is Certified in Machine Learning and Six Sigma Implementation Techniques. He possesses strong knowledge in Data Mining, Data Transformations, Cognitive Algorithms, Image structures, and Deep Neural Networks. He's an Expert in building Search Engines, Chatbots, Recommendation Systems, Anomaly Detection Systems, and Computer Vision Capabilities. He also works on Data Governance, Image Processing, CRM Intelligence, Business Process Improvements, IT Operations, and Robust Process Automation.



**Mr. Kumar
Sundaram**

14+years

Skills - Underwriting Strategies, Risk Scores and Modelling, Information Management

Kumar's tech expertise includes Analytics, Machine Learning using SAS, R, Python, Tableau, and Excel. He has extensive experience in building technical teams and products and vast experience in business development pertaining to schools, universities, and educational institutions. In addition, he has gained knowledge and expertise in Underwriting Strategies, Risk Scores and Modelling, Analytics, Transformation, and Risk and Information Management.



**Mr. Shanmugam
Thiagarajan**

Skills - Data architecture, data mining, ML prediction models

Shanmugam is a Freelance Consultant and Trainer. He provides Consulting and Training in Data Science, Data Warehouse, Data Architecture, Database Technologies, Data Mining, Business Analytics, and Machine Learning.

GROW WITH IMARTICUS

Job Assurance



Our career services will introduce you to existing data analytics and machine learning opportunities and ensure that you land your dream job.

Profile Enhancement



We assist you in building a robust portfolio to ensure that your profile always catches the eye of prospective employers.

Resume Building



Improve your employability by redesigning your resume with professional help and highlighting your strengths in the best possible way.

Interview Preparation



We have analysed the most commonly asked interview questions and built a training module that confidently prepares you for job interviews.



Imarticus Data Wars Hackathon

- Participate in the national-level data science hackathon
- Compete to solve a challenging data science problem
- Sharpen your data science application skills
- Enhance your CV by winning the hackathon

Imarticus Data Science Project Competition

- Participate in the national-level data science competition
- Create a data science project and nominate it for competition
- Showcase your data science skills for real-world applications
- Enhance your CV by winning the project competition

CAREER SERVICES:



Communication Skills



Interview Preparation Workshop



Resume Building



1:1 Career Mentoring



**Profile Enhancement
(LinkedIn, GitHub)**



Mock Interviews



DELIVERY:



Classroom/Online Live Training

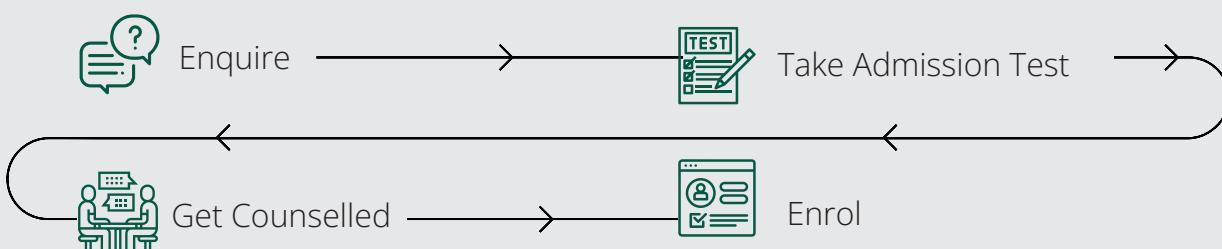
*The Program Manager will support you and help you achieve your career objectives.

CERTIFICATION

Upon successfully completing this program, you'll earn a Postgraduate Program in Data Science and Analytics certificate. This certification will add considerable value to your professional credentials.



ADMISSION PROCESS



SUCCESS STORIES

Fresh Graduate



Gowtham
Graduate in Mechanical Engineering

▼
SQL Analyst
Standard Standard Bank



Srilekya
Graduate in Mathematics

▼
SQL Analyst
Standard Standard Bank



Vivek
Graduate in BCA

▼
Machine Learning Scientist
Dhiomcs



Krushna Jadhav
Graduate in Computer Science

▼
Data Analyst
Standard Standard Bank



Prem Kumar
Maintenance Engineer

▼
Project Engineer
in Data Analytics and AI Unit
Wipro



Arshad
Process Trainer

▼
SQL Analyst
Standard Standard Bank

Experienced



Arun T
Sales Officer

▼
SQL Developer
CBRE



Yogesh Patil
RBI developer

▼
Data Scientist
Sankey Solution



**SCAN FOR
MORE INFORMATION**

