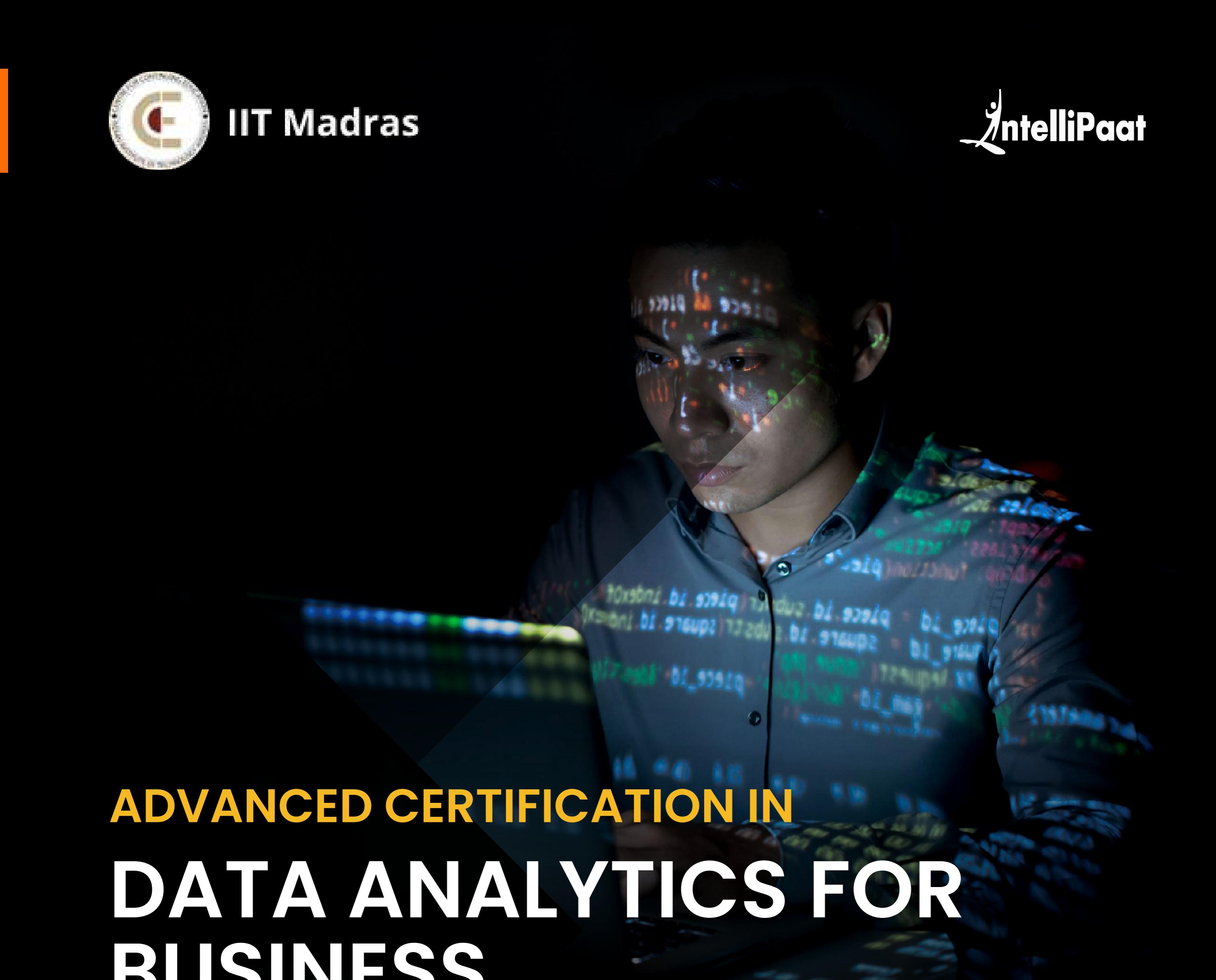




IIT Madras

 IntelliPaat



# ADVANCED CERTIFICATION IN DATA ANALYTICS FOR BUSINESS

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Master Data Analytics skills and take your career to the next level!



1.2 Million  
Learners



1:1 Personalized  
Mentorship



55% Average  
Salary Hike

# Advanced Certification in Data Analytics for Business

Jump-start your career in Data Science and Business Analytics through this Advanced Certification in Data Analytics for Business by IIT Madras and Intellipaat. Learn from IIT Madras faculty and industry experts with 1:1 mentorship.



IIT Madras

## Hottest Job of 21st Century



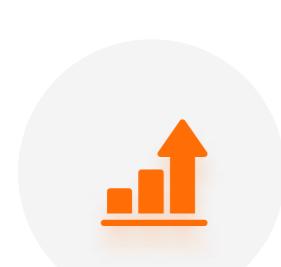
### 1.7 Million Job Postings

There is a global estimate of 1.7 million job postings for data analytics roles by 2022



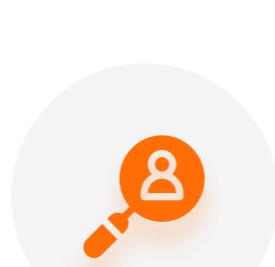
### Skill Development

Data analysts are equipped with various relevant skills, fetching lucrative job offers



### Growing Analytics Industry

45.4% CAGR in Indian Analytics Industry



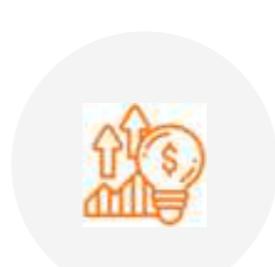
### Future-oriented Career

Data Analytics is a budding field; a head start will prove to be beneficial



### Popular Degree

40% Data Analysts have a Master's Degree



### High Demand

By 2022, India & US will face a demand supply gap of 430,000 data analytics professionals

## Our Credentials



**1.2 Million+**

Aspiring Active Students



**1,000+**

Industry-expert Instructors



**400+**

Hiring Partners



**200+**

Corporates Upskilled



**55%**

Average Salary Hike



**155+**

Countries' Learners

# About Program

The program aims to help learners develop a strong skill set including business analytics, descriptive statistics, probability distributions, predictive modeling, time series forecasting, and data architecture strategies as well as master the domain knowledge required to excel in this field.



## Learning Format

Online Boot Camp



## 7 Months

Live Classes



## Career Services

By Intellipaat



## IIT M CCE

Certification

## Key Highlights

- ✓ 400 Hrs of Applied Learning
- ✓ 218 Hrs of Self-paced Learning
- ✓ 24\*7 Support
- ✓ 50+ Live sessions for a period of 7 months
- ✓ Career Services by Intellipaat
- ✓ Designed for Working Professionals & Fresher's
- ✓ 50+ Industry Projects & Case Studies
- ✓ One-on-One with Industry Mentors
- ✓ 2 Days campus immersion at IIT Madras
- ✓ Learn from IIT Madras Faculty & Industry Practitioners
- ✓ 3 Guaranteed Interviews by Intellipaat
- ✓ No-cost EMI Option

## Program Pedagogy



### Instructor-led Training

Get trained by top industry experts



### Hackathons

Get a sense of how real projects are built



### Dedicated Learning Managers

To help you with your learning needs



### Peer Networking and Group Learning

Improve your professional network and learn from peers



### Self-paced videos

Learn at your own pace with world-class content



### Gamified Learning

Get involved in group activities to solve real-world problems



### Projects and Exercises

Get real-world experience through projects



### 1:1 Personalized Learning

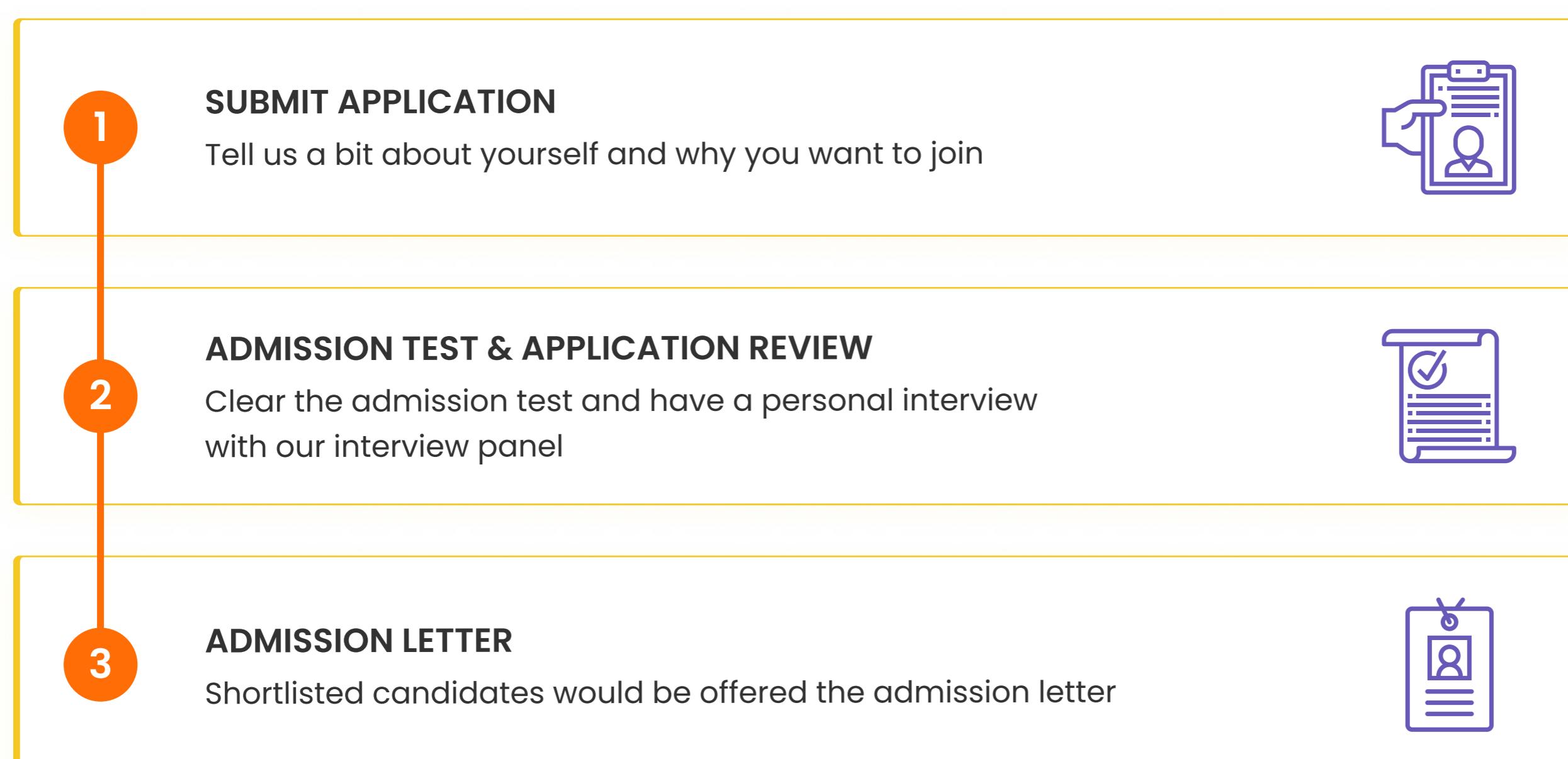
Hands-on exercises, project work, quizzes, and capstone projects

# Who Can **Apply for the Course?**

- ✓ Individuals with a bachelor's degree and a keen interest to learn Data Science and Business Analytics
- ✓ IT professionals looking for a career transition to Data Scientists and Business Analysts
- ✓ Professionals aiming to move ahead in their IT career
- ✓ Data Science and Business Analysis professionals willing to validate and develop skills in the domain
- ✓ Developers and Project Managers
- ✓ Fresher's who aspire to build their career in the field of Data Science and Business Analytics

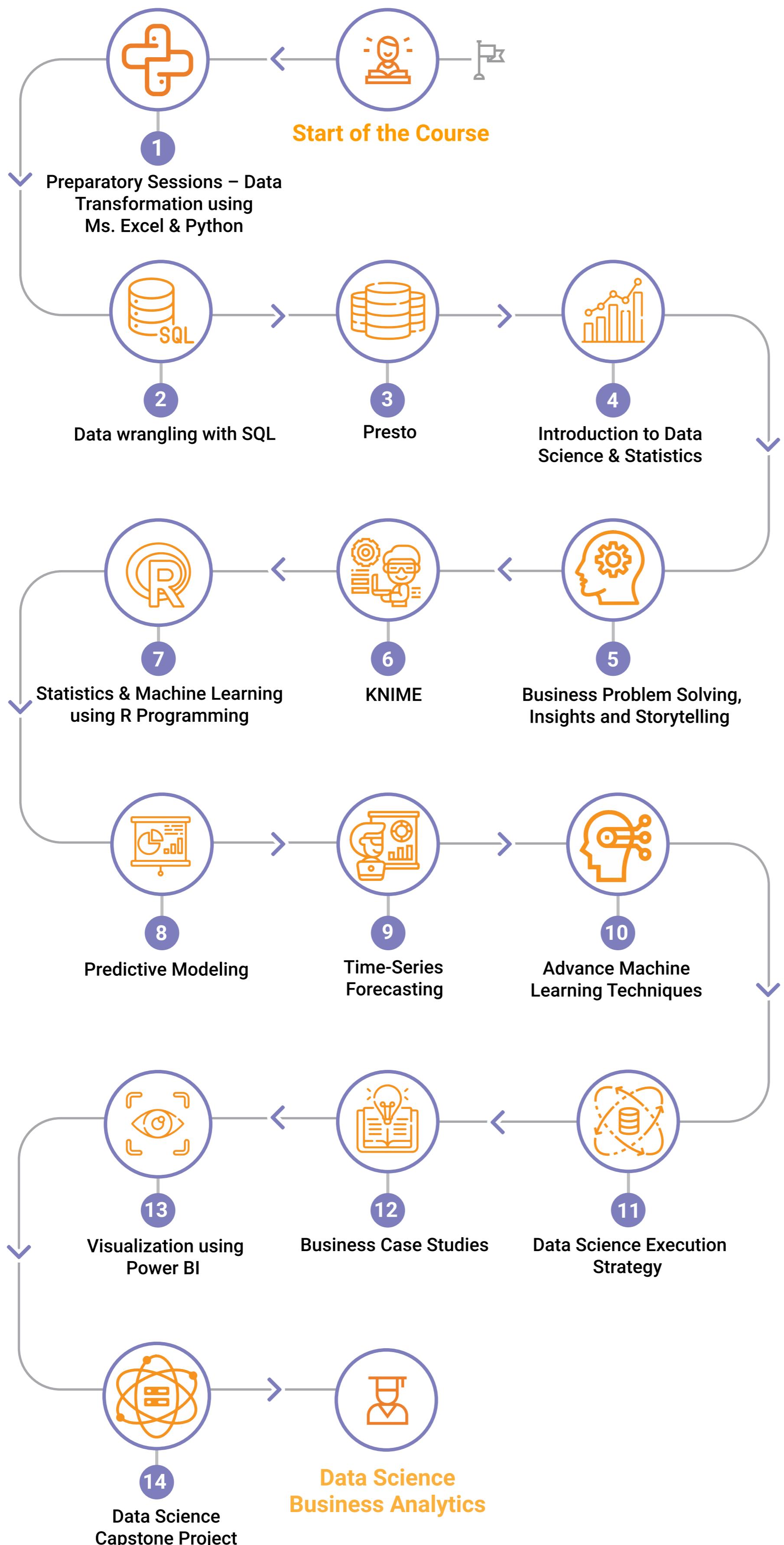
## Application **Process**

The application process consists of three simple steps. Candidates have to submit their application. An offer of admission will be made to the selected candidates, and their application will be accepted upon the payment of the admission fee.



# Learning Path

## Live Courses



# Program Curriculum

## Module 1

### Preparatory Sessions – Data Transformation using Ms. Excel & Python

Learn how to do data analysis, data transformation and other important data analysis functions. Basic fundamental of Python and learn how to do data analytics using the same.

## Module 2

### Data wrangling with SQL

- Introduction to SQL
- Database normalization
- Entity-relationship model
- SQL operators
- Join, tables, and variables
- SQL functions
- Subqueries
- SQL functions, views, and stored procedures
- User-defined functions
- SQL performance and optimization
- Advanced concepts

## Module 3

### Data Science with R

- What is Data Science
- Data Exploration
- Data Manipulation

## Module 4

### Introduction to Data Science & Statistics

- Descriptive Statistics
- Introduction to Probability

## Module 5

### Business Problem Solving, Insights and Storytelling

- Business domains
- Understanding the business problem and formulating hypotheses
- Exploratory data analysis
- Data storytelling: Narrate stories in a memorable way
- Project on deriving business insights and storytelling using descriptive & inferential statistics

## Module 6

### Optimization Techniques

- Regression
- Trees (Decision & Random Forest)

## Module 7

### Advance Machine Learning Techniques

- Hyper parameter optimization
- Handling unstructured Data

## Module 8

### Time-Series Forecasting

- Introduction to time-series
- What is seasonality & trends?
- What is stationary process?

## Module 9

### Optimization Techniques

- Linear programming
- Integer programming
- Mixed integer programming
- Solving Problems on Kaggle

## Module 10

### Designing end to end Data Science pipeline

Understand the importance of Data Science in business world and how complex business problems are solved with data driven solution with high level of accuracy.

## Module 11

### Additional Business Case Studies

- Marketing & Retail Analytics
- Social Analytics
- Logistics & supply chain
- Financial Analytics

## Module 12

### 12: Visualisation using Power BI

- Introduction to Power BI
- Data Extraction
- Data Transformation – Shaping & Combining Data
- Data Modelling & DAX

# Program Curriculum

- Data Visualisation with analytics
- Power BI Service (Cloud), Q&A and Data Insights
- Power BI Settings, Administration & Direct Connectivity
- Embedded Power BI with API & Power BI
- Power BI Advance & Power BI Premium

## Module 13

### Presto

- Introduction to Presto
- Writing Queries in Presto on large data sets
- Data Transformation using Presto

## Module 14

### KNIME

- Introduction to KNIME
- Working with data in KNIME
- Loops in KNIME
- Web scraping in KNIME
- Hyperparameter optimization in KNIME
- Hyperparameter optimization for Machine Learning
- Models using loops in KNIME
- Feature Selection in KNIME

## Skills to Master

- SQL
- Data Wrangling
- Data Analysis
- Prediction algorithms
- Data visualization
- Time Series
- Machine Learning
- PowerBI
- Advanced Statistics
- Data Mining
- R Programming

## Tools to Master



# Course Projects

Projects cover the following industries:



Retail



Social Media



Supply Chain



Entrepreneurship



E-commerce



Banking



Healthcare



Insurance

## Predicting class of a flower

Beginner

This project is made to predict the class of a flower. By analyzing the data about the petal and their dimensions, the class of the flower would be determined using a trained Machine Learning model that has optimum accuracy.

## Fraud Detection

Beginner

The project is to create a model which would help in detecting Credit Card fraud using Machine Learning subcategories like supervised, unsupervised, and reinforcement learning techniques like Neural Network and Random Forest.

## Data Analytics on Census dataset

Beginner

The project is meant to analyze and predict whether an individual has an annual income of more than Rs 50,000 or less using various machine learning techniques, some of which are supervised and unsupervised learning.

## Pokemon Analysis

Intermediate

Select a pokemon whose primary type is "Grass", secondary type is "Poison" with the maximum speed. It creates a model that predicts whether the selected pokemon is Legendary or not using Machine Learning and Data Analysis techniques.

## Analyzing impact factors in Telecom

Intermediate

The project aims to find the most impacting factors in the preferences of the pre-paid model and to identify which variables are highly correlated with impacting factors. The goal of this project is to find the factors that have the maximum impact on the preferences of the pre-paid model.

## Stock Market Analysis

Intermediate

This project focuses on Machine Learning by creating a predictive data model to predict the future stock prices. It also analyzes the current trends in the stock market using algorithms like Linear Regression and k-Nearest Neighbors.

## Comment Identity & Classification

Advance

Work on the comment dataset of Yelp to build a multi-headed model that can identify & categorize various types of toxic comments (obscenity, insults, threats etc.). It must allow the user to find and select the required type

## Loan Approval Prediction

Advance

The project aims to analyze whether the applied loan would be approved or not by identifying the variables correlated with impacting factors. It is predicted using techniques such as Logistic Regression, Decision Tree and Random Forest.

## Book Recommender

Advance

This project aims at building a book recommendation engine based on past reading and buying history of an individual. It will analyze the dataset using Machine Learning techniques, R programming and its various libraries.

## Recommendation Engine using Netflix prize

Advance

The recommendation engine is built using Netflix prize dataset that will collect the data from various sources of a user, anticipate their preferences and will recommend movies according to the user's behavior and choices made earlier.

# Course Advisors / Faculty



## Dr. Arun K. Tangirala

Professor, IIT Madras

Dr. Tangirala is a professor at IIT Madras with expertise in Analytical Chemistry and a keen interest in the fields of Controller Performance Monitoring, Time-Frequency Analysis of Processes, and Fuel cells, etc.



## Dr. Nirav Bhatt

Assistant Professor, IIT Madras

He works as an assistant professor for the Biotech department at IIT Madras and holds a DSc from EPFL, Switzerland. His research interests span from modelling and optimization of biological networks to Machine Learning.



## Prof. Babji Srinivasan

Associate Professor, IIT Madras

Prof. Babji is with IIT Madras as an assistant professor in the dept. of Applied Mechanics. He holds a Ph.D from Texas Tech University and his research interests span from Behavioural Informatics to Cognitive Systems Engineering.



## Madhu Babu Cherukuri

Sr. Data Scientist at Intel Corporation

He carries over 15 years of expertise in handling various analytics projects, using several types of ML algorithms in multiple business domains. He also comes with extensive knowledge in SAS, SQL, R, Python and is proficient in Big Data Environment.



## Vinayak Panchaman

Business Intelligence Consultant at IKEA

Vinayak has over 13+ years of experience and specializes in Data Modeling preparing KPIs, SQL query, Functional Dashboards with Qlik, Power BI, Sentiment Analysis, etc along with holding a CSM (Certified Scrum Master) certification.



## Prof. Shankar Narasimhan

Professor, IITM

A fellow of the Indian National Academy of Engg, his research area includes Data Mining, Process Design & Optimization, FDD etc. He has co-authored several reconciliation papers, a book and a course 'Data Science for Engineers' on the NPTEL platform.



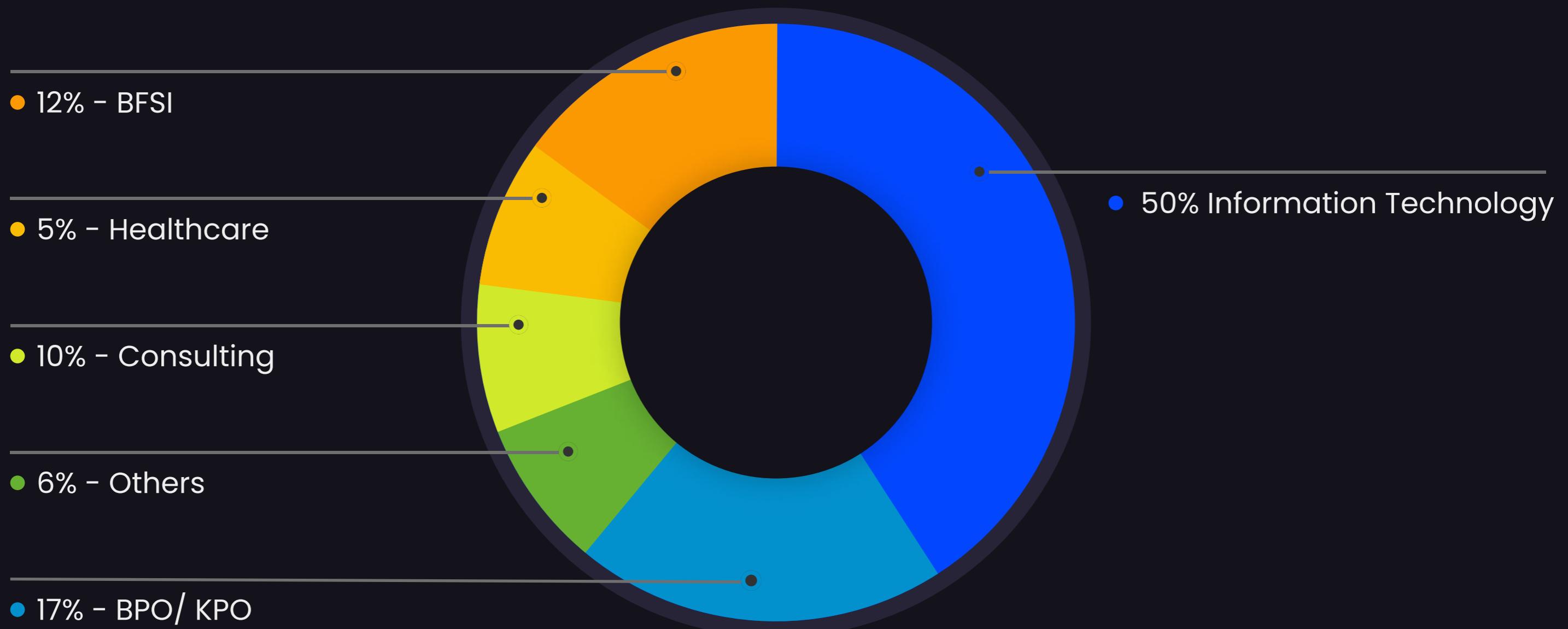
## Mr. Suresh Ramadurai

Data Science Consultant

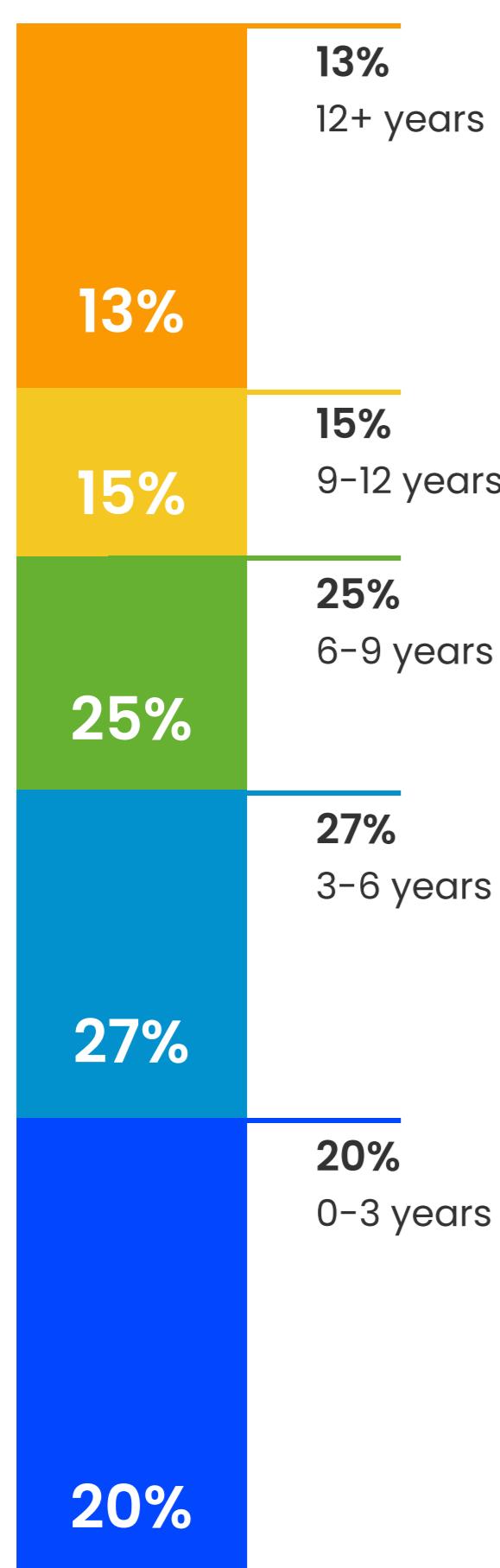
Having spent 25 years in the Data Science field, he has excelled in driving profitable brands using Research & Analytics in Advertising, Market Research for companies like JWT, IBM etc. An alumnus of IIT Delhi & IIM Bangalore, he currently teaches Analytics.

# Meet the **Batch**

## Industries Our Learners Come From



## Work **Experience**



Some of their current employers include



# Intellipaat Career Services



500+  
Webinars



600+  
Job Shares



400+  
Hiring Partners



55%  
Avg. Salary Hike

## What Makes Us **Tick**



### Career-oriented Sessions

Attend 25+ career-oriented sessions by industry mentors and prepare your career trajectory



### Profile Building

Craft a Data Analytics resume and LinkedIn profile to make an impression on top employers



### Mock Interview Preparation

Prepare with mock interviews including most asked questions by top employers



### 1:1 Mentoring Sessions

Get 1:1 guidance at every step in your career transition to Data Science



### Minimum 3 guaranteed interviews

Get job interviews with 400+ hiring partners including promising startups and top MNCs



### Dedicated Job Portal Access

Get exclusive access to 200 job postings per month on Intellipaat's job portal



### Job Fairs

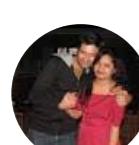
Job fairs are conducted regularly to introduce learners to major organizations



### Hackathons

Work in teams and get exclusive access to hackathons

## Learner **Reviews**



**Manas Ranjan**

Data Analyst at Amazon

I am happy to have enrolled in this Data Science program. The syllabus is organized and the course is well designed. Best features are the 24\*7 support and trainers who are domain experts.

“



**Afsana Zaman**

Analyst at American Electric Power

Great learning experience with this course. The support team was always available. The collaboration of practical with theoretical knowledge makes it highly suitable for those who want to upskill.

“



**Vikrant Singh**

Big Data Consultant at Amazon

It was a wonderful learning experience to learn from the trainers at Intellipaat. They were prompt and provided real-time scenarios. Intellipaat is the right place for learning the latest technology.

“

# Glimpse of our Successful Transitions



4.6 ★★★★☆



4.5 ★★★★☆



4.38 ★★★★☆

## Career Transitions



**Gaurav Saboo**  
Senior Technical Associate

From  
**Technical Analyst**

To  
**Senior Technical Associate**



**Melwin Rodrigues**  
Data Scientist

From  
**Customer Service Agent**

To  
**Data Scientist**



**D Rajesh Sahoo**  
Machine Learning Engineer

From  
**B.Tech - Civil Engineering**

To  
**Machine Learning Engineer**



**Ankit Kumar**  
Data Scientist

From  
**B.com Graduate**

To  
**Data Scientist**



**Mahesh Chowdary**  
Data Scientist

From  
**Aircraft Maintenance Engineer**

To  
**Data Scientist**



**Jeanette Masso**  
Big Data Developer

From  
**Computer Technical Specialist**

To  
**Big Data Developer**



**Prosenjeet Saha**  
Data Scientist

From  
**Manager Analytics & Data Science**

To  
**Data Scientist**



**Nishchay Agrawal**  
Data Engineer

From  
**Fresher**

To  
**Data Engineer**



# Program Partners



## About Intellipaat

Intellipaat is one of the leading online training providers with more than 1.2 million learners in over 155 countries. We are on a mission to democratize education as we believe that everyone has the right to quality education. We create courses in collaboration with top universities and MNCs for employability like IIT Madras, University of Essex, University of Liverpool, IIT Roorkee, IIT Guwahati, SPJIMR, IBM, Microsoft, etc. Our courses are delivered by SMEs & our pedagogy enables quick learning of difficult topics. 24/7 technical support & career services help learners to jump-start their careers.



## About IIT Madras

IIT Madras Digital Skills Academy has initiated various programs in partnership with NASSCOM. The courses offered by them aim to upskill millions of students and professionals in trending technologies through a blend of theoretical and hands-on knowledge and are taught by leading academicians.

### Upon the completion of this program, you will:

- Receive an Advanced Certification in Data Science and AI from IIT Madras center for continuing education.
- Receive Live Lectures from IIT Madras Faculty & Industry Experts



**1.2 Million** Learners & 200+ Corporates across 155+ countries  
upskilling on Intellipaat Platform



## Contact Us

### INDIA

AMR Tech Park 3, Ground Floor, Tower B, Hongasandra Village,  
Bommanahalli, Hosur Road, Bangalore, Karnataka 560068, India  
Phone No: +91-7022374614

### UK

Flat 16 Bluepoint Court, 203 Station Road, Harrow,  
Middlesex HA1 2TS, UK

### USA

1219 E. Hillsdale Blvd. Suite 205, Foster City, CA 94404  
Phone No: 1-800-216-8930