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Only program in India to be offered by pure-play Data Scientists

# Learn Data Science with **Case Studies & Internship**

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**Only Program**

**In India to be offered by  
pure-play Data Scientists**

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# Bootcamp Overview



In this age of technology, data has become the driving force of companies' strategies. Companies and individuals who can make sense of data have a strategic edge over their competition. Therefore, Data Science is fast becoming an essential skill. **But whenever you think of pursuing Data Science, you are often deluged by the tools of Data Science. But what does a Data Scientist do?**

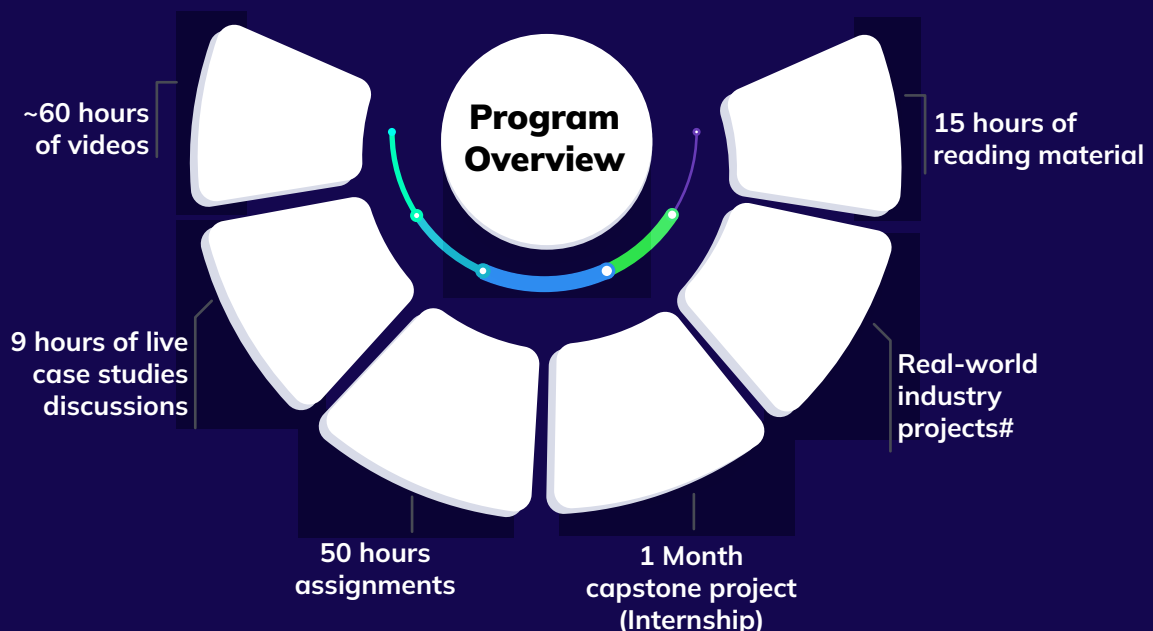
*"Data scientists analyze data and bring forth the insights hidden in a dataset."*

The advice that you need to have a mastery over the tools of the job is short-sighted for the tools are ever-changing. **To become a good Data Scientist, you must fall in love with data – tools can be learned forever.**

This requires a student to develop an intuitive understanding of data, something that can only be taught by someone who deals with data every day. This is where we step in. This course is a perfect blend of theoretical concepts and practical knowledge, delivered to you by trailblazers of the field, who will coach you or advise you, as per your need.

*This is the only course in India to be offered by pure-play Data Scientists who eat data for breakfast.*

Unlike others we don't keep you confined to textbook examples. In fact, you would hear anecdotes first and then learn about the theoretical bases of it. We will teach you both the why and the how of Data Science.



# Study Plans

Over 100 hours of learning through 6 months investment is all you need to make you stand out among your peers and set you on a path available only to a select few.

Price - ₹30,000

## Who should apply

Learning, ideally, shouldn't have a prerequisite. Or at least so we have designed this course. Nevertheless, to give you some flavour, this course is for you if:

## Learning outcomes

1

Intellectual familiarity with the world of AI - The ability to technically understand what AI can and can't do is a coveted skill already.

2

Get a job/internship in Data Science- Should you consider a job or internship in machine learning, the course is meant to prepare you for that.

3

Pursue Machine Learning in your higher academics - Data Science is domain agnostic. Try a master's thesis in your final year or even a data-intensive course for your higher studies on the basis of this course.

4

Coding is mythically intimidating only if you don't touch it. Start with a bit of coding in the course and then, trust us, it is an addiction of a superpower.

- You hold/pursuing a degree - irrespective of the specialization.
- If you want to explore Data Science as a career option in addition to your core specialization.
- If you are looking to start your career in Data Science.
- If you enjoy learning by real-life examples and stories.
- If you believe that data is going to be a necessary ingredient in the future that we are about to witness.



# Curriculum

## The Data Mindset

- Introduction to Data Analysis
- Anatomy of Data
- Tools for Analyzing Data - Excel
- Tools for Analyzing Data - SQL

## Power BI

- Introduction to Power BI
- Getting Started with Power BI Desktop
- Power Query Editor
- Data Modelling
- Data Visualization & Formatting
- Bookmarks and View Switching
- DAX
- Power BI Dashboards
- Security in Power BI
- Power BI Service
- Best Practices

## Advanced SQL

- Introduction to SQL & DBMS
- MySQL Installation
- SQL Concepts
- Understanding Databases
- SQL - Phase -1
- Constraints in MySQL
- Employees - Database
- SQL 'Select'
- 'Insert' , 'Update' & 'Delete'
- Aggregate Functions
- Joins
- SQL Sub Queries
- Self Join & Views
- Stored Routines
- Window Function
- Common Table Expression (CTE's)
- Temporary Tables

## Python

- Introduction to Python
- Basics of Python
- In built Data Structures in Python
- Strings
- List and Dictionary Comprehension
- Functions
- Object Oriented Programming
- Working with Files
- Exception Handling
- Numpy
- Pandas
- Visualization
- Installation of VS Code

## BI -Tableau

- Get Set with Tableau
- Basics of Tableau
- Serving your visualizations
- Essential Charts and Your First Dash-board
- Sets, groups and clusters
- Data Analysis and Forecasting
- Advanced concepts and moving forward



# Curriculum (contd.)

## Introduction to Statistics

- Intro to Statistics
- Types of Variables
- Measures of Central Tendency & Spread
- Measuring Position
- Histograms
- Types of Distributions
- Normal Distribution
- Central Limit Theorem
- Confidence Intervals
- T-Distribution
- Hypothesis Testing
- Examples of Hypothesis Testing
- Tutorials

## Introduction to Machine Learning

- Introduction
- Learning process
- EDA\_FE
- Feature Selection
- How a Model Learns
- Measuring Performance
- Model Performance
- Bias-Variance
- Visualization
- Feature Engg Demo
- Feature Scaling

## Supervised Learning-1

- Introduction to Linear Regression
- Model Training - Linear Regression
- Model evaluation - Linear Regression
- Regularisation - Linear Regression
- Assumptions of Linear Regression
- Locally weighted Linear Regression
- Demonstration - Linear Regression
- Introduction to Logistic Regression
- Model Training - Logistic Regression
- Model Evaluation - Logistic Regression
- Demonstration - Logistic Regression
- Multiclass Classification

## Supervised Learning-2

- Intro to Decision Trees
- Classification Trees
- Bagging
- Boosting

## Unsupervised Learning

- K-means Clustering
- Demo-K-Means
- Hierarchical Clustering
- Association rule mining
- Demo-Association Rule Mining
- Recommendation Systems

## ChatGPT

- Predictive Modelling with Chat-GPT
- Stock Price Prediction



# Sample Projects

A Project/Internship mimics a real-life project that TransOrg Analytics has solved at some point in time. While a real-life project lasts for 6-24 months, these miniaturized versions are meant to give students a life-cycle view of a Data Science project. Of course, to be able to fit these into a one-month exercise, some complexities of a real-life project are toned down significantly.

It is important to appreciate that Data Science is not only about solving new problems but also about solving existing use cases with 'better' data. This means the data being used in a use case may not only be the 'obvious' transactions data but also possibly about users' geolocation, from transponders and sensors, data that a business might have gathered from its partners, dirty and incomplete data from a filed collection and so on. Here is an indicative list of the kind of project we would offer to the students:

**Note:** This being a beginners' program does not include building models of chatbots, web crawlers, face recognition, emotion detection, speech to text, and similar cool stuff that is a staple content in many pseudo-Data Science portals.

**Approve a loan based on more data than what has been filled in the application form.** While it is common for banks and NBFCs to consider the CIBIL and similar scores, it is rare for them to also use a lot of derived data based on an applicant's geolocation.

**Will this order be returned by the customer?** For an e-commerce seller, it is imperative to predict the probability of an order coming back to it under its 'returns and refunds policy'. An order coming back to the seller means an upfront loss.

**Which Data Science model is better?** You made two models to solve a use case. Which model works better in production? (Includes an extra reading on A/B testing).

**Demand hotspots for drivers – Show a driver his nearest hotspots where he is likely to get more demand.** This is pertinent for the hyperlocal mobility operators where demand is sporadic, sprawled, and spiked. Such a system increases daily revenue per driver.

**Predictive maintenance – Let's repair this component before it breaks.** This is quite a novel intervention that ML can make in the world of manufacturing where machines and components break down and cause production delays and other losses.

**What is a better deal – In the next two hours, should a driver ferry passengers or take a cargo delivery?** For the hyperlocal electric vehicles that can both be deployed as passengers as well as cargo vehicles, let the driver know the best value of his next two-hour slot.

**Does it still make sense to pursue this potential customer?** Known as 'dynamic lead scoring', till when a prospect customer be pursued based on her interaction with the business.

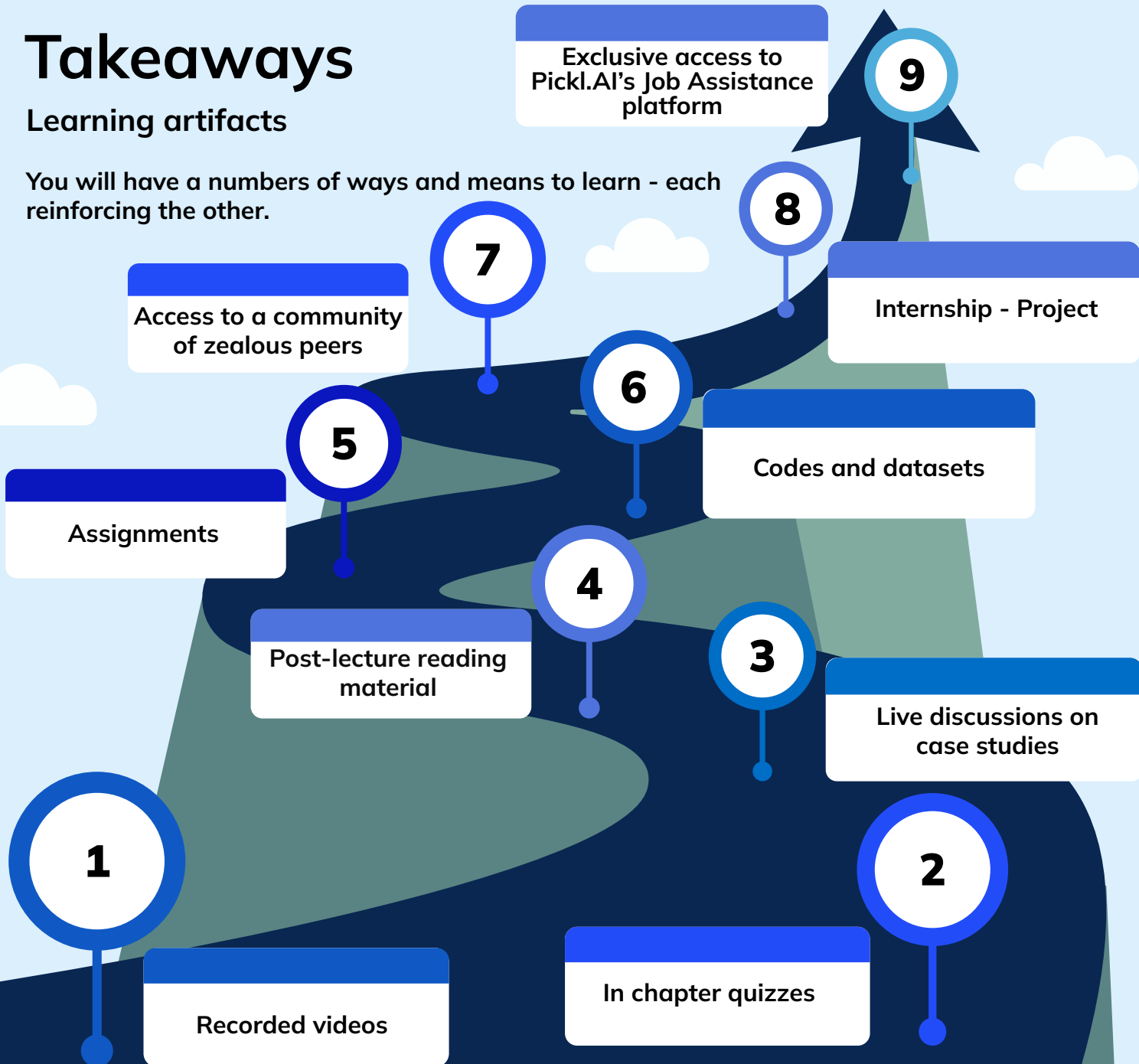
**Is a property still alive on an online real estate rental portal?** The tenant or the landlord may not go back and update that a property has been rented out. Based on the activity data on the property, can the property portal make its best guess and update it?

**Sir, what is the best time to call you next?** A brand having an omnichannel presence tries to ensure it doesn't irk customers by excessive calling. Can we know which customers prefer calls, which do WhatsApp, which do Email, and also at what time of the day?

# Takeaways

## Learning artifacts

You will have a numbers of ways and means to learn - each reinforcing the other.



## Course completion & Certification criteria

You shall be awarded a course certificate only post the submission and evaluation of mandatory course project work. These will be provided as a part of the training.

There is no pass/fail for these assignments and projects. Our objective is to ensure that the pupils get strong hands-on experience so that they are well-prepared for a Data Science career ahead.

After the completion of the course, all participants would be offered 1 month project with TransOrg Analytics and an internship certificate.

# Distinguished Faculty and Mentors



**Archana Rao**

MTech in Computer Science and AI | Notable Data Science mentor at various platforms | Research Scientist - Machine Learning, Deep Learning and Natural Language Processing | 7+ experience in Data Science



**Jagpreet Singh**

Economics graduate from SRCC | Master's Economics from the Delhi School of Economics (DSE) | 15 years in business consulting to Fortune 100 companies | CPG and Retail Analytics Specialist | Expert in Machine Learning, Deep Learning and Natural Language Processing



**Vishad Dubey**

DTU (Delhi College of Engineering) Graduate | MBA - Finance from IIM Kozhikode | 12+ experience in Data Analytics | Investment Banking, Real Estate, Hospitality | Skilled in Machine Learning Statistical Data Analysis, Business Strategy and Consulting | Expert in Excel, VBA, Python, SQL, PowerBI



**Shuchita Jain**

Analytics Sales & Marketing Director | Big Data Analytics, Machine Learning (ML), Robotic Process Automation & AI Consultant | 14 years of leadership experience in the analytics domain | PGDM from IMI, New Delhi and an MBA from Vanderbilt University



**Dhruv Kumar**

Graduate from BITS Pilani | 7+ experience with Large Ticket credit data and HealthCare Real World Data (RWD) | Statistics and Regression Analysis expert | Strong expertise in SQL, Excel, Data Studio, Python, VBA and R



**Mradul Jain**

Masters in Business Analytics | 9+ experience in Customer Analytics, Machine Learning & Process Automation | CPG, Retail and Fintech domain expert | Specializes in Machine Learning, Natural Language Processing (NLP) and Predictive Modeling

# A few glimpses of gratitude...



**Balanced course** - Course is a great combination of width and depth. No extra Google search required.

**“Doesn’t disrupt your existing schedule”** - learn and practice in byte size assignments.

**“Case studies brought to life** what I learned in the videos.” Awesome!

# FAQs

**Q Does one need to have a prior knowledge of coding or maths?**

**A** No. Data science involves a preliminary coding that can be learned on the go. An intermediate level maths understanding is more than enough.

**Q Which language will I be coding in?**

**A** Mostly in Python. All of the codes we provide will be in Python. Following another language like R is not a task once you have a good command on Python. The fundamentals remain the same.

**Q Other than videos, what are some ways to learn in the program?**

**A** The course is designed for a multifarious learning. You learn from the videos, from the live classes that are conducted by the same instructors, from the reading material that we would handover after each class, from assignments and most importantly from your peers through the mechanisms provided by us.

**Q How is this program different than many others in the market?**

**A** No other course would offer you the different ways of learning - recorded video, in chapter quizzes, live classes, reading material, assignments, projects and community learning.

Instructors teaching you are hands on Data Scientists themselves. They have put great efforts to take out time from their projects to create this course for you. This is an unparalleled learning experience.

**Q Do you offer a job guarantee upon completion of the course?**

**A** No this course would not guarantee you that. With this course we don't believe in getting you a fish or two. Instead, we would teach you how to fish.

**Q Do you offer the project as a part of the course?**

**A** Yes, we do offer a 1 month internship project as a part of the course.





# About TransOrg Analytics

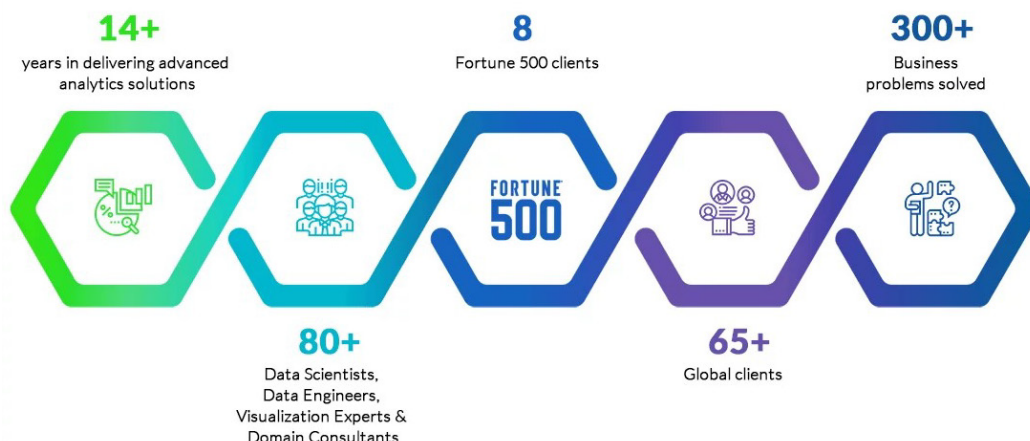
TransOrg Analytics has built a scalable and cost-effective integration of 'Big Data' and 'Predictive Analytics'. The idea is to help companies make better decisions by understanding the customer's needs through data analytics. By building intelligent and scalable solutions, we help our clients to realise both their short-term tactical and long-term strategic value. Our Data Scientists have creatively used open source technologies to develop a suite of productized services and industry-centric proprietary, predictive and optimization models.



We, at TransOrg Analytics, are ready to guide you with our unique course proposition where our domain experts guide and mentor you. Real world data becomes your classmate and real-life problems would be your opportunities to solve. With 14+ years of experience in analytics, a team of 80+ Data Scientists from premier schools, TransOrg has successfully delivered over 300 projects of varying complexities for top brands across the globe.

We specialize in providing advanced analytics and Automated Machine Learning based solutions, services and products in the areas of Marketing, Operations and Risk Management to clients across the industries including Banking, Financial Services, Insurance, Asset Management, Brokerage, Retail, Consumer Packaged Goods (CPG), Telecom, Aviation and Hospitality.

## A Snapshot of TransOrg Analytics





“Hiding within those mounds of data is knowledge that could change the life of a patient, solve a business problem or potentially change the world”

## Contact Information



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