



Advanced Certificate Programme in

# DATA SCIENCE

Get the Right Picture



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# About upGrad, IIITB, and LJMU, UK

*upGrad has delivered over 20 million hours of learning, delivering programs by collaborating with universities across the world including Duke CE, IIT Madras, IIT Bangalore and Deakin Business School, among others*

Online education is a fundamental disruption that will have a far-reaching impact. **upGrad** was founded taking this into consideration. upGrad is an online education platform to help individuals develop their professional potential in the most engaging learning environment.

Since inception, upGrad has delivered over 20 million hours of learning, delivering programs by collaborating with universities across the world including Duke CE, IIT Madras, IIT Bangalore and Deakin Business School among others.

upGrad is focused on helping working professionals in their bid to learn, grow and move up in their career through a wide-range of programs designed to improve their expertise.

**IIITB** is a renowned university offering programs specialising in data science, machine learning and artificial intelligence. The IIITB faculty includes an average of 15+ years of experience.

The faculty covers the conceptual depths of topics such as Data Science, Machine Learning and Artificial Intelligence, and Big Data Analytics. These will be complemented by industry relevant case studies from major industry verticals by industry leaders with 8+ years of experience from upGrad's industry network.

Furthermore, our strong placement network, industry mentorship and the credibility of an Advanced Certificate Programme will provide you with just the right push to accelerate your career in Data Science!



# Why upGrad?

**INR 72 Lakhs Highest Salary**

**300+ Hiring Partners**

**400% Highest Raise**

**700+ Industry Experts**

**58% Avg Salary Hike**

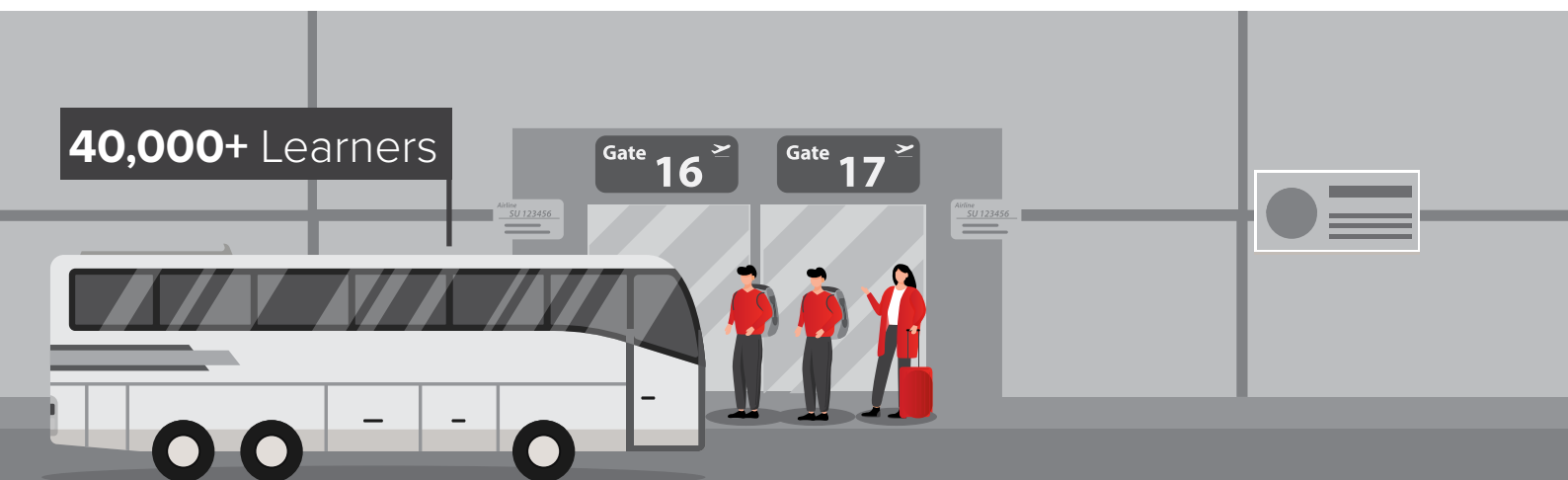
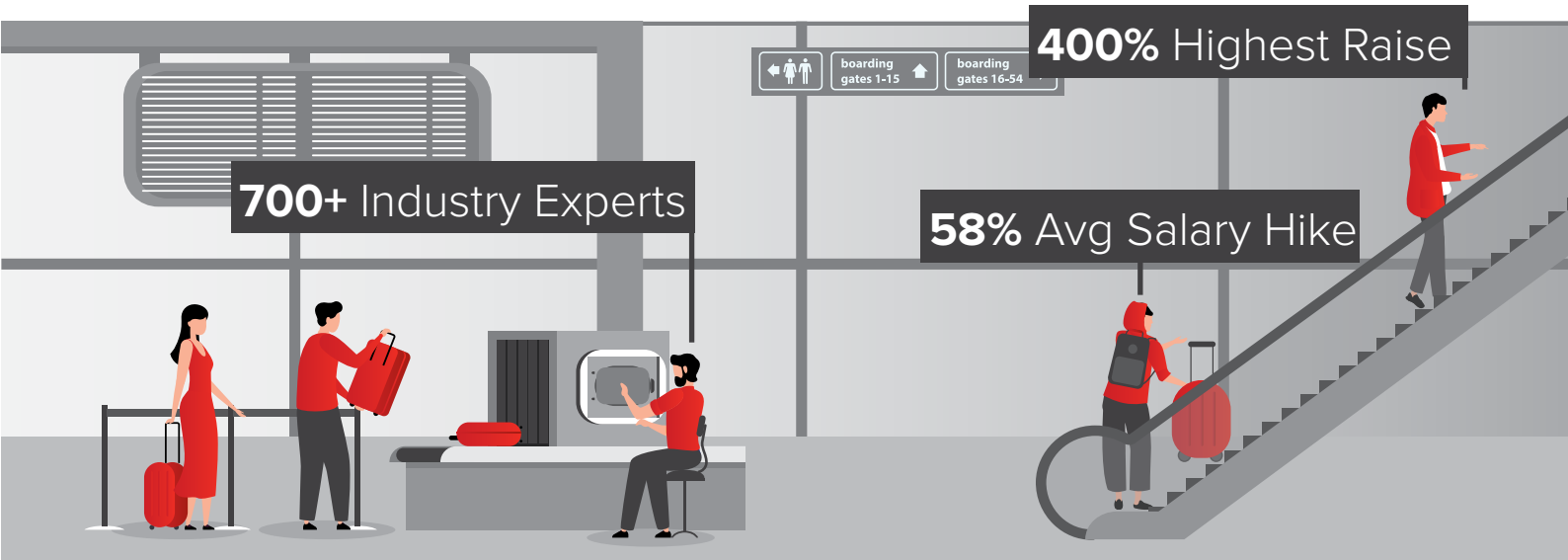
**40,000+ Learners**

Gate 16

Gate 17

Airline: SU 123456

Airline: SU 123456





# Program Highlights



## Certification from IITB

Get certified by IITB and gain alumni status from upGrad on successful completion of the certification.



## For The Industry, By The Industry

Learn from 7+ case studies and industry experts to mentor you throughout the program.



## Dedicated Career Assistance

Receive 360 degree career support from mock interviews with hiring managers, resume building, career fairs, industry mentors and much more.



## Personalised Mentorship

Get unparalleled personalised mentorship and doubt resolution from our panel of industry experts.



## Articulate to a an Executive PG Programme in Data Science

Upon successful completion of the Advanced Certificate Programme in Data Science, get an opportunity to upgrade to the NASSCOM Certified Executive PG Programme in Data Science from IIT Bangalore wherein, on completing the 6-month program, you would receive alumni status from IIT Bangalore and get a certification from NASSCOM FutureSkills. You can choose to specialise in any of the 6 specialisations of the Executive PG Programme



5+ Programming Languages and Tools along with Basic & Advanced Machine Learning Algorithms

## Blended Learning

Learn with the ease and flexibility of recorded sessions as well as live sessions and small group coaching sessions - designed to ensure a wholesome learning experience.



# New Additions

## 30-Hour Programming Bootcamp for Non-Tech Learners

- Non-tech background? No need to fear of Programming anymore
- A 30-hour Python Programming boot-camp focusing on developing Basic + Intermediate Python Programming Concepts to assist non-tech learners
- A blended learning experience delivered via Interactive live sessions and assessments

## Career Essential Soft-skills Program

- Excel your personal & professional life with upGrad's Soft Skills Program
- Study Three fundamental Skills - Interview & Job Search, Corporate & Business Communication and Problem Solving
- Get access to 40+ learner hours of soft skills content delivered by the best faculty & Industry experts





# Faculty and Industry Experts



**Hindol Basu**  
CEO  
Actify Data Labs

An alumnus of IIT and IIM with over 13 years of experience in Analytics with industry leaders such as the CitiGroup, Tata Industries etc.



**Chandrashekar Ramanathan**  
Dean | Academics  
International Institute of Information  
Technology Bangalore

Prof. Chandrashekar has a PhD from Mississippi State University and over an experience of 10 years in several multinational organisations.



**S. Anand**  
CEO  
Gramener

A Gold medallist from IIM Bangalore, an alumnus of IIT Madras and London School of Business, Anand is among the top 10 data scientists in India.



**Tricha Anjali**  
Former Associate Dean  
International Institute of Information  
Technology Bangalore

Prof. Anjali has a PhD from Georgia Tech as well as an integrated M.Tech. (EE) from IIT Bombay. Her research interests computer and wireless.



**Prof. Debabrata Das**  
Director  
International Institute of Information  
Technology Bangalore

Dr. Debabrata Das is serving as Director of IIIT Bangalore (IIITB). He has completed his Ph.D. degree from the Indian Institute of Technology Kharagpur. His main areas of research interest are IoT and Wireless Access Network's MAC, QoS, Power saving.



**Ujjayini Mitra**  
Head of Analytics  
ZEE 5

An alumnus of Mckinsey and Co., Flipkart, and Bharti Airtel with over 11 years of experience.



**Prof. G. Srinivasaraghavan**  
Professor  
International Institute of Information  
Technology Bangalore

Prof. Srinivasaraghavan has a PhD in Computer Science from IIT Kanpur and 18 years of experience with Infosys Technologies as well as several other companies.



**Ankit Jain**  
Sr. Research Scientist  
Uber Ai Labs

An alumnus of IIT Bombay, UCB, and Harvard Business School with over 9 years of experience.



**Dinesh Babu Jayagopi**  
Assistant Professor  
International Institute of Information  
Technology Bangalore

Prof. Dinesh has a PhD from Ecole Polytechnic Federate Switzerland, M.Sc. from IISc Bangalore in System Science and Signal Processing, and B.Tech.



**Kalpana Subbaramappa**  
ex-AVP | Decision Science  
Genpact

Kalpana is the ex-AVP of Decision Sciences at Genpact with an experience of over 20 years.



**Mirza Rahim Baig**  
Lead | Business Analytics  
Flipkart

Advanced analytics professional with 8+ years of experience as a consultant in the e-commerce and healthcare domains.



**Prof. V. Sridhar**  
Faculty In Charge, CPE, IIITB

Dr. Sridhar has a Ph.D. from the University of Iowa, U.S.A. He has been a member of Government of India committees on Telecom and IT and has published many peer reviewed articles in telecom and information systems journals.





# upGrad Learning Experience

## Format

- Online format with live sessions weekly: Weekly live learning sessions from industry experts to help with topic walkthroughs, Small Group Coaching Sessions, 1-1 doubt resolution via Industry Expert & Discussion Forum and personalised project feedback.
- Offline sessions such as basecamps and hackathons.

## Mentorship

- 20+ live interactive sessions with industry experts, Fortnightly personalised group (1:8) coaching sessions, 1-1 interaction with Industry Mentor & a dedicated Student mentor for proactive mentoring.

## Hands-On Projects and Hackathons

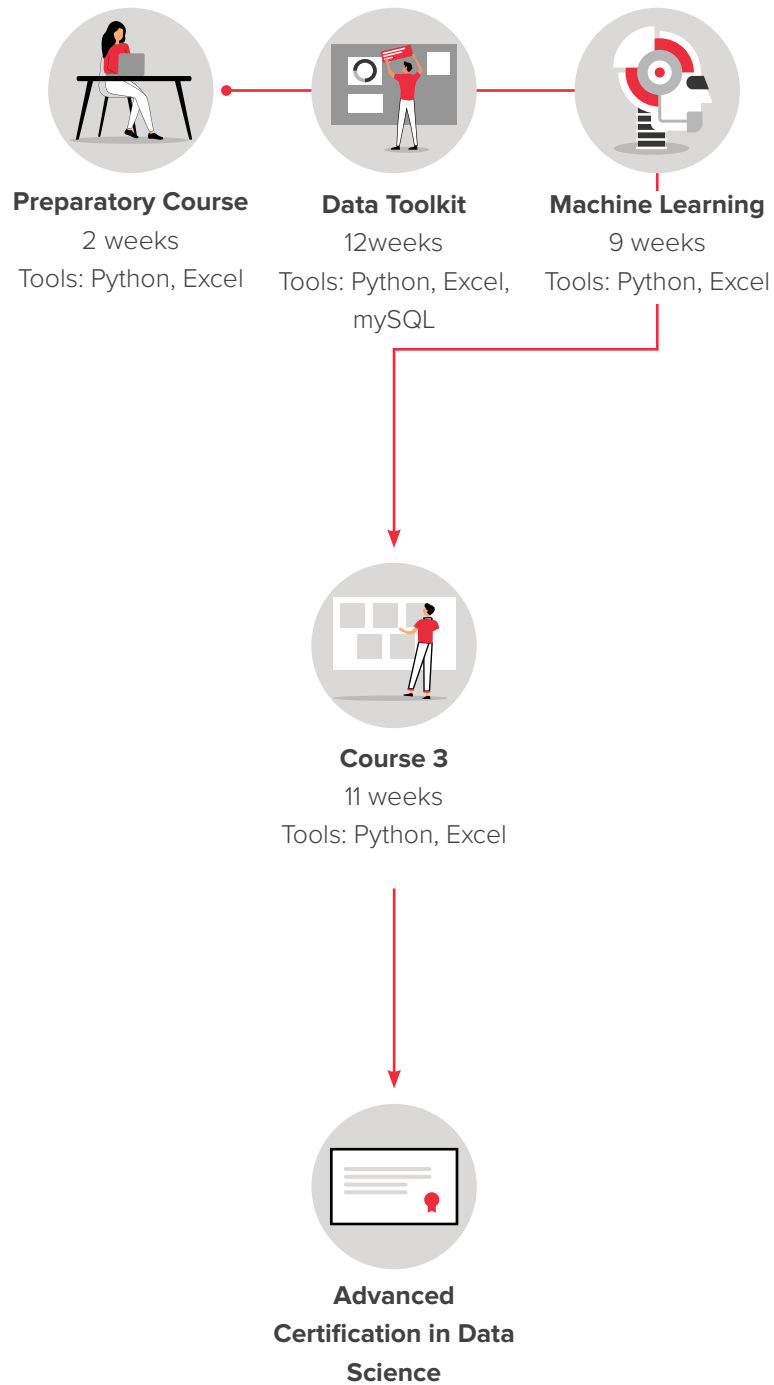
- 7+ case studies to choose from and a hackathon every quarter to apply learnings.

## Coaching

- Student Support Team & upGrad Buddy
- Weekly real-time doubt clearing sessions
- Live Discussion forum for peer to peer doubt resolution monitored by technical experts
- Peer to peer networking opportunities with an alumni pool of 10000+
- Lab walkthroughs of 7+ industry driven case studies
- Access to the program for upto 3 years.

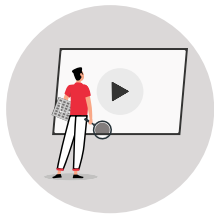


# Learning Path





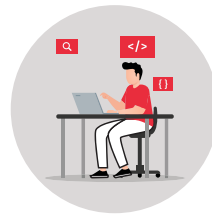
# Industry Projects



IMDb Movie Analysis



Uber Supply-Demand Gap



Lead Scoring



Fraud Detection



Creditworthiness of  
Customers



Speech Recognition

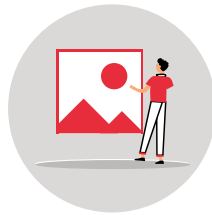


Image Captioning



Gesture Recognition



Social Media Listening



Telecom Churn



Interactive Market  
Campaign Analysis



Retail Giant Sales  
Forecasting



And many more!

# Program Curriculum

## PRE-PROGRAM PREPARATORY CONTENT

### DATA ANALYSIS IN EXCEL

- 1. INTRODUCTION TO EXCEL**
  - 2. DATA ANALYSIS IN EXCEL - I: FUNCTIONS, FORMULAE, AND CHARTS**
  - 3. DATA ANALYSIS IN EXCEL - II: PIVOTS AND LOOKUPS**
- Taught by one of the most renowned data scientists in the country (S.Anand, CEO, Gramener), this module takes you from a beginner level Excel user to an almost professional user.

### ANALYTICS PROBLEM SOLVING

- 1. THE CRISP-DM FRAMEWORK - BUSINESS AND DATA UNDERSTANDING**
  - 2. CRISP-DM FRAMEWORK - DATA PREPARATION, MODELLING, EVALUATION AND DEPLOYMENT**
- This module covers concepts of the CRISP-DM framework for business problem-solving.

## COURSE 1: DATA TOOLKIT

### INTRODUCTION TO PYTHON

- 1. UNDERSTANDING THE UPGRAD CODING CONSOLE**
  - 2. BASICS OF PYTHON**
  - 3. DATA STRUCTURES IN PYTHON**
  - 4. CONTROL STRUCTURE AND FUNCTIONS IN PYTHON**
  - 5. OOP IN PYTHON**
- Understanding the upGrad Coding Console Basics of Python Data Structures in Python Control Structure and Functions in Python OOP in Python. **2 WEEKS**



## PROGRAMMING IN PYTHON

<b>1. LOGIC AND SYNTAX BUILDING</b>	Learn how to approach and solve logical problems using programming.	<b>2 WEEKS</b>
<b>2. DATA STRUCTURES: LISTS, STRINGS, DICTIONARIES, AND STACKS</b>		
<b>3. TIME COMPLEXITY</b>		
<b>4. SEARCHING AND SORTING</b>		
<b>5. TWO POINTERS</b>		
<b>6. RECURSION</b>		

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## PYTHON FOR DATA SCIENCE

<b>1. INTRODUCTION TO NUMPY</b>	Learn how to manipulate datasets in Python using Pandas which is the most powerful library for data preparation and analysis.	<b>1 WEEK</b>
<b>2. INTRODUCTION TO MATPLOTLIB</b>		
<b>3. INTRODUCTION TO PANDAS</b>		
<b>4. GETTING AND CLEANING DATA</b>		

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## VISUALIZATION IN PYTHON

<b>1. INTRODUCTION TO DATA VISUALIZATION</b>	Humans are visual learners and hence no task related to data is complete without visualisation. Learn to plot and interpret various graphs in Python and observe how they make data analysis and drawing insights easier.	<b>1 WEEK</b>
<b>2. DATA VISUALISATION USING SEABORN</b>		

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## IMDB MOVIE ASSIGNMENT

<b>1. PROBLEM STATEMENT</b>	Reinforce the concepts learnt in data science through this rigorous assignment involving the past hundred years of movie data.	<b>1 WEEK</b>
<b>2. EVALUATION RUBRIC</b>		
<b>3. FINAL SUBMISSION</b>		
<b>4. SOLUTION</b>		

## EXPLORATORY DATA ANALYSIS

- |   |   |               |
|---|---|---------------|
| 1. DATA SOURCING                                | Learn how to find and analyse the patterns in the data to draw actionable insights. | <b>1 WEEK</b> |
| 2. DATA CLEANING                                |   |               |
| 3. UNIVARIATE ANALYSIS                          |   |               |
| 4. BIVARIATE ANALYSIS AND MULTIVARIATE ANALYSIS |   |               |
- 

## INFERENTIAL STATISTICS

- |   |  |               |
|---|--|---------------|
| 1. BASICS OF PROBABILITY                | Build a strong statistical foundation and learn how to 'infer' insights from a huge population using a small sample. | <b>1 WEEK</b> |
| 2. DISCRETE PROBABILITY DISTRIBUTIONS   |  |               |
| 3. CONTINUOUS PROBABILITY DISTRIBUTIONS |  |               |
| 4. CENTRAL LIMIT THEOREM                |  |               |
- 

## HYPOTHESIS TESTING

- |  |  |               |
|--|--|---------------|
| 1. CONCEPTS OF HYPOTHESIS TESTING - I: NULL AND ALTERNATE HYPOTHESIS, MAKING A DECISION, AND CRITICAL VALUE METHOD | Understand how to formulate and validate hypotheses for a population to solve real-life business problems. | <b>1 WEEK</b> |
| 2. CONCEPTS OF HYPOTHESIS TESTING - II: P-VALUE METHOD AND TYPES OF ERRORS   |  |               |
| 3. INDUSTRY DEMONSTRATION OF HYPOTHESIS TESTING: TWO-SAMPLE MEAN AND PROPORTION TEST, A/B TESTING                  |  |               |
- 

## DATA ANALYSIS USING SQL

- |   |  |               |
|---|--|---------------|
| 1. DATABASE DESIGN                      | Data in companies is definitely not stored in excel sheets! Learn the fundamentals of database and extract information from RDBMS using the structured query language. | <b>1 WEEK</b> |
| 2. DATABASE CREATION IN MYSQL WORKBENCH |  |               |
| 3. QUERYING IN MYSQL                    |  |               |
| 4. JOINS AND SET OPERATIONS             |  |               |



### CREDIT EDA CASE STUDY

<b>1. PROBLEM STATEMENT</b>	Solve a real industry problem through the concepts learnt in exploratory data analysis.	<b>1 WEEK</b>
<b>2. EVALUATION RUBRIC</b>		
<b>3. FINAL SUBMISSION</b>		
<b>4. SOLUTION</b>		

## COURSE 2 - MACHINE LEARNING

### INTRODUCTION TO MACHINE LEARNING AND LINEAR REGRESSION

<b>1. SIMPLE LINEAR REGRESSION</b>	Venture into the machine learning community by learning how one variable can be predicted using several other variables through a housing dataset where you will predict the prices of houses based on various factors.	<b>2 WEEKS</b>
<b>2. SIMPLE LINEAR REGRESSION IN PYTHON</b>		
<b>3. MULTIPLE LINEAR REGRESSION</b>		
<b>4. MULTIPLE LINEAR REGRESSION IN PYTHON</b>		
<b>5. INDUSTRY RELEVANCE OF LINEAR REGRESSION</b>		

### LINEAR REGRESSION ASSIGNMENT - BIKE SHARING SYSTEMS

**1 WEEK**

<b>1. PROBLEM STATEMENT</b>	Build a model to understand the factors on which the demand for bike sharing systems vary on and help a company optimise its revenue.
<b>2. EVALUATION RUBRIC</b>	
<b>3. FINAL SUBMISSION</b>	
<b>4. SOLUTION</b>	

### LOGISTIC REGRESSION

**2 WEEKS**

<b>1. UNIVARIATE LOGISTIC REGRESSION</b>	Learn your first binary classification technique by determining which customers of a telecom operator are likely to churn versus who are not to help the business retain customers.
<b>2. MULTIVARIATE LOGISTIC REGRESSION: MODEL BUILDING AND EVALUATION</b>	
<b>3. LOGISTIC REGRESSION: INDUSTRY APPLICATIONS</b>	

## UNSUPERVISED LEARNING: CLUSTERING

1. INTRODUCTION TO CLUSTERING	Learn how to approach open ended real world problems using data as a lever to draw actionable insights.	<b>1 WEEK</b>
2. K-MEANS CLUSTERING		
3. HIERARCHICAL CLUSTERING		
4. OTHER FORMS OF CLUSTERING: K-MODE, K-PROTOTYPE, DB SCAN		

## BUSINESS PROBLEM SOLVING

1. INTRODUCTION TO BUSINESS PROBLEM SOLVING	Learn how to approach open ended real world problems using data as a lever to draw actionable insights.	<b>1 WEEK</b>
2. BUSINESS PROBLEM SOLVING: CASE STUDY DEMONSTRATIONS		

## CLUSTERING ASSIGNMENT

1. PROBLEM STATEMENT	Apply the machine learning concepts learnt to help an international NGO cluster countries to determine their overall development and plan for lagging countries.	<b>1 WEEK</b>
2. EVALUATION RUBRIC		
3. FINAL SUBMISSION		
4. SOLUTION		

## CASE STUDY: LEAD SCORING

1. PROBLEM STATEMENT	Help the Sales team of your company identify which leads are worth pursuing through this classification case study.	<b>1 WEEK</b>
2. EVALUATION RUBRIC		
3. FINAL SUBMISSION		
4. SOLUTION		



## **COURSE 3 - 11 WEEKS**

### **DATA SCIENCE GENERALIST - ADVANCED MACHINE LEARNING AND STORYTELLING**

- TREE MODELS
- BOOSTING (OPTIONAL)
- MODEL SELECTION & GENERAL ML TECHNIQUES
- ADVANCED REGRESSION + ML LAB 2: REGRESSION
- TEXT ANALYTICS & PROCESSING + TEXT-BASED PREDICTIVE MODELLING

### **NATURAL LANGUAGE PROCESSING / DEEP LEARNING - MACHINE LEARNING - II**

- TREE MODELS
- MODEL SELECTION & GENERAL ML TECHNIQUES
- PRINCIPAL COMPONENT ANALYSIS
- ADVANCED REGRESSION
- ADVANCED REGRESSION ASSIGNMENT
- BAGGING AND BOOSTING
- TIME SERIES ANALYSIS
- TELECOM CHURN CASE STUDY

### **BUSINESS INTELLIGENCE - SQL AND NOSQL DATABASES**

- DATA MODELLING
- ADVANCED SQL AND BEST PRACTICES
- SQL ASSIGNMENT: IMDB MOVIES
- ADVANCED EXCEL
- NOSQL DATABASES AND BEST PRACTICES
- INTRODUCTION TO BIG DATA AND CLOUD
- HIVE AND QUERYING
- HIVE CASE STUDY

### **BUSINESS ANALYTICS - ADVANCED MACHINE LEARNING**

- TREE MODELS
- TIME SERIES FORECASTING
- RETAIL-GIANT SALES FORECASTING ASSIGNMENT
- MODEL SELECTION & GENERAL ML TECHNIQUES
- ADVANCED SQL - II
- ADVANCED EXCEL

## DATA ENGINEERING - DATA ENGINEERING - I

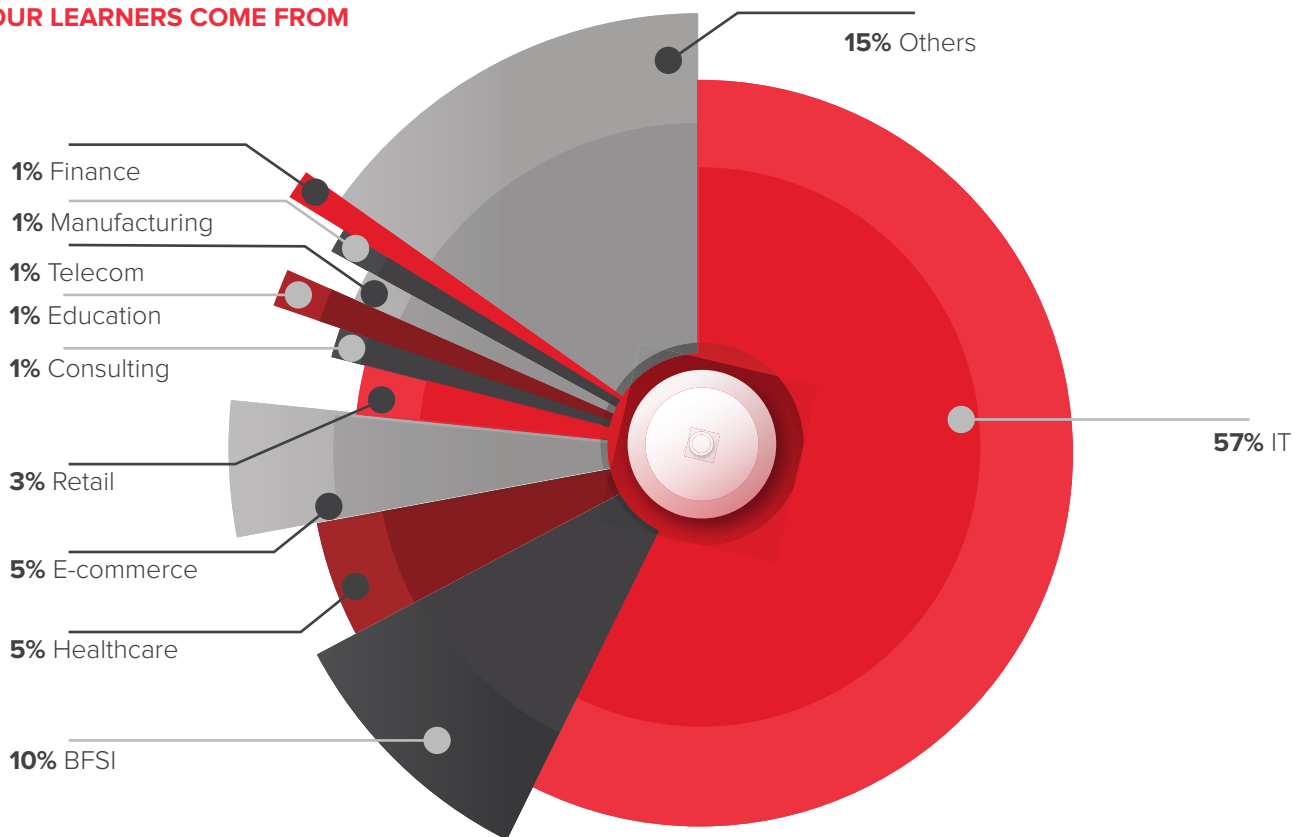
- INTRODUCTION TO BIG DATA (OPTIONAL)
- INTRODUCTION TO CLOUD AND AWS SETUP
- INTRODUCTION TO HADOOP AND MAPREDUCE PROGRAMMING
- DATA MANAGEMENT AND RELATIONAL DATABASE MODELLING
- DATA INGESTION WITH APACHE SQOOP AND APACHE FLUME
- HIVE & QUERYING
- ASSIGNMENT (OPTIONAL)
- AMAZON REDSHIFT
- INTRODUCTION TO APACHE SPARK
- PROJECT: ETL DATA PIPELINE



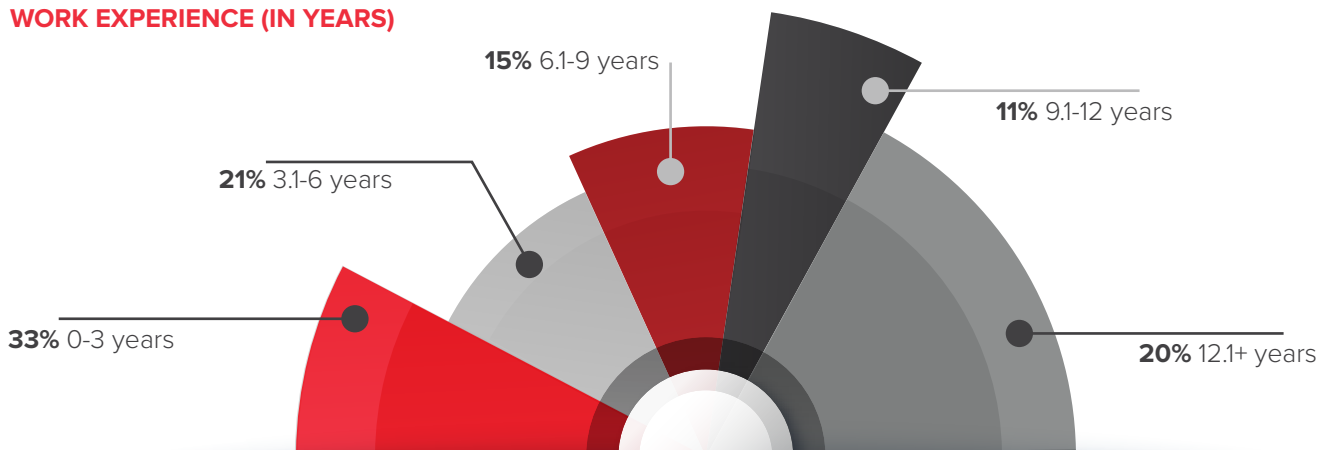


# Meet the Class

## INDUSTRIES OUR LEARNERS COME FROM



## WORK EXPERIENCE (IN YEARS)



**A few of the companies our students are from:** Accenture, Amazon, Cognizant, Deloitte, Infosys, Microsoft, Wipro, EY, CitiBank, Cisco, Thomson Reuters

# Career Support

## Job Opportunities Portal

Gain exclusive access to upGrad's 200+ job openings each quarter, giving you the opportunity to be interviewed by upGrad's hiring partners.

## upGrad Career Fairs

Regular hiring drives in major cities across India, giving you the opportunity to interview with upGrad's 300+ hiring partners, ensuring you get every opportunity you deserve.

## Just-In-Time Interviews

Get company and role-specific preparation with mock interviews right before your actual interviews.

## Resume Review

Obtain specific, personalised inputs on your resume structure and content.

## Personalised Mentorship

Get mentored by an experienced data science industry expert and receive personalised feedback with 4 calls spread over a period of 3 months.

## Career Mentor

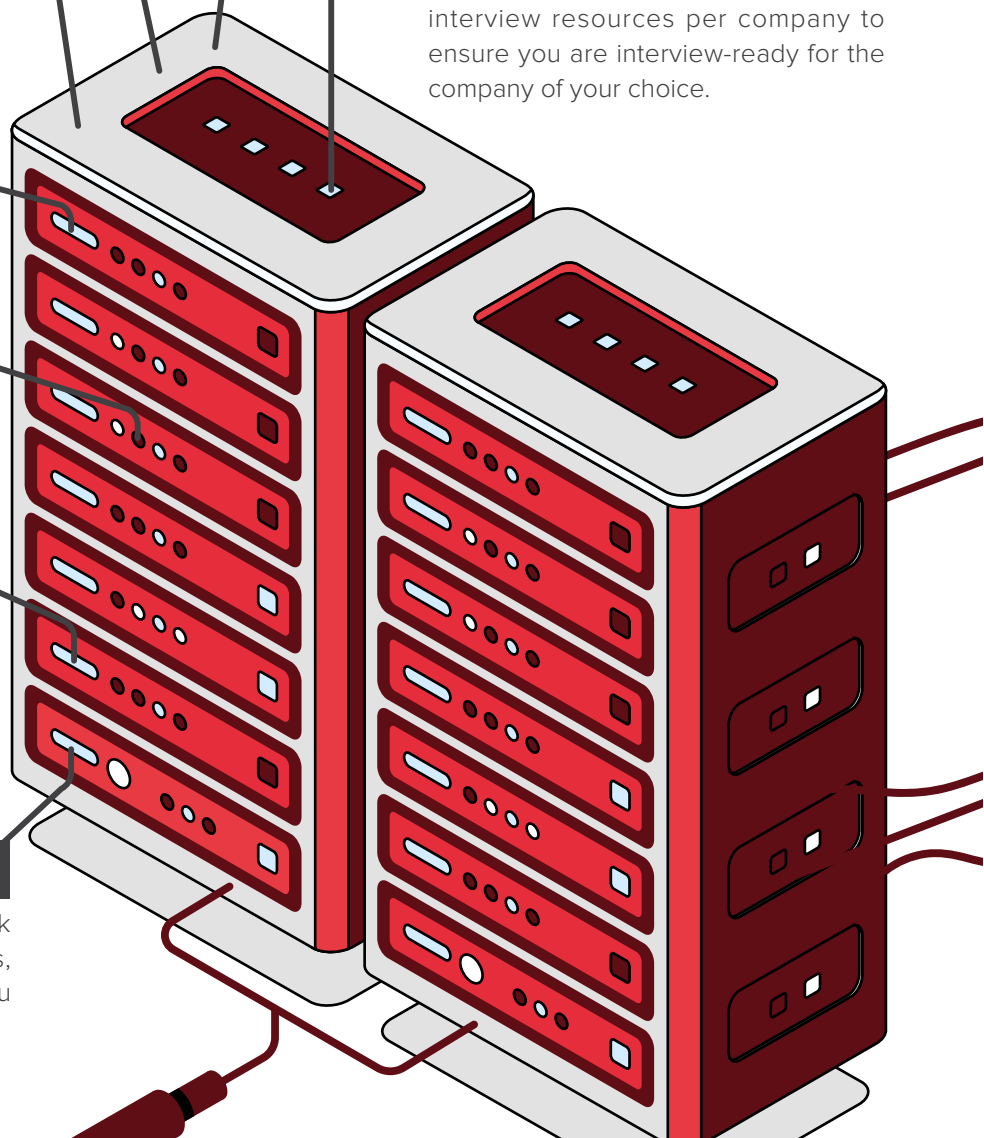
Get a dedicated career mentor to help track your weekly company application targets, coach you on your profile, and support you during your career transition journey.

## Post Graduation Career Support

Career sessions are continued post graduation because we want you to have all the help you need. These include: live sessions with industry mentors to guide you, dedicated mentorship, and access to upGrad's career assistance resources.

## Company-Specific Preparation

Get company-specific guidance with access to a carefully curated pool of interview resources per company to ensure you are interview-ready for the company of your choice.





# Our Alumni Work at

## PROGRAM SUMMARY










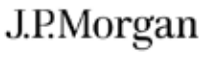










**20,000+**  
Enrolled Learners

**INR 72**<sub>LPA</sub>  
Highest Salary Hike

**400%**  
Highest Salary Hike

**58%**  
Average Salary Hike

upGrad has a network of over 100 companies who look to recruit graduates from our programs. Some of these well-known companies include:

# Career Transitions



**Abhishek Singh**  
MIS Executive (F&B)  
Batch: March 2018



Senior Data Analyst, Myntra  
(Oct 2019)



**Ayush Modi**  
Associate Consultant (IT)  
Batch: March 2018



Marketing Analyst,  
Globalization Partners  
(July 2019)



**Ashish Y**  
Asst. Manager  
(Manufacturing/Production)  
Batch: Sept 2018



Business Analyst, Arvind  
(Sept 2019)



**Jai Krishna**  
Fresher  
Batch: Sept 2018



Business Analyst, Quantzig  
(Nov 2019)



**Shadab Hussain**  
Data Scientist (IT)  
Batch: Sept 2018



Analyst, TheMathCompany  
(July 2019)



**Damodar Bandi**  
Global Supply Chain Analyst  
(Software)  
Batch: Dec 2018



Sr. Business Analyst, Data  
Semantics  
(Aug 2019)



**Shubhadip B**  
Technical Project Manager  
(Tech Solutions)  
Batch: June 2018



Sr. Technical Project Manager,  
Aurionpro  
(Oct 2019)



**Deepshikha**  
Senior Associate (Tech)  
Batch: March 2019



Data Analyst, Amazon  
(Nov 2019)



**Rohit W**  
Quality Assurance Tester  
(BFSI)  
Batch: Jan 2019



Python Automation Engineer,  
Credit Suisse  
(July 2019)



**Hariharan S**  
AVP (BFSI)  
Batch: March 2018



Project Manager, HSBC  
(Aug 2019)



**Mohit Mangain**  
Internship (IT)  
Batch: March 2018



Data Analyst, Shine.com (Aug  
2019)



**Aakash Dusane**  
Software Engineer (Software)  
Batch: Dec 2018



Data Scientist, Quantzig  
(Aug 2019)



**Sri Harsha Ravi**  
Principal Data  
Structure Engineer (IT)  
Batch: Sept 2018

↓  
Senior Data Scientist, IHS  
Markit  
(Nov 2019)



**Sujit Nalawade**  
Software Engineer (IT)  
Batch: Sept 2018

↓  
Data Analyst, Xoriant



**Sudha Choudhary**  
Fresher  
Batch: June 2018

↓  
Internship - AI Engineer,  
Athancare  
(July 2019)



**Nishant Chalasany**  
Project Manager (Agro)  
Batch: March 2019

↓  
Analytics Operations Lead,  
Syngenta  
(July 2019)



**Ganesh Varanasi**  
Analyst (BFSI)  
Batch: March 2018

↓  
Data Scientist, Innominds  
(July 2019)



**Anshul Srivastava**  
Business Analyst (BFSI)  
Batch: Sept 2018

↓  
Associate Consultant, Fractal  
(Aug 2019)



**Anshul Kumar**  
Analyst (BFSI)  
Batch: March 2019

↓  
Data Science Intern,  
Merkle Sokrati  
(Aug 2019)



**Sylvester Pinto**  
Senior Software Engineer (IT)  
Batch: Dec 2018

↓  
Data Associate, J.P. Morgan  
(June 2019)



**Ansuman Das**  
Risk Analyst (IT)  
Batch: March 2019

↓  
Specialist Data Analyst,  
Novartis  
(Aug 2019)



# Offline **Meet-Ups & Career Assistance**



## **UPGRAD BASECAMPS**

Held across all major cities in India, upGrad basecamps bring together learners, faculty and industry experts for a power-packed day of activities, career building sessions & live group projects. Get to know your peers and faculty and hone your networking skills in an exciting environment.

## **UPGRAD ELEVATE**

Team up and put your learning to use with our offline hackathons - designed to help you apply concepts and meet, network and grow!





# Hear from Our Learners

**Kunwar Alok, Experience: 15+ Years**

*"You may not believe but I have never done coding in my life. I did it during this program and was thrilled to see the outcomes coming out of those codes. Just the way I used to get happy after solving a good (tough) math problems during my school age. Thanks to upGrad for doing a great service to people like us who at the age of 43 can dream to study with budding talents around."*

**Sachin Aggarwal, Experience: 18+ Years**

*"Learning with IITB and upGrad has been an experience like no other. Being an online program, you have your worries about how the program and teaching methods will be. My favourite part about the learning experience has been programming through well designed and thoughtful content shared by IITB professors and industry experts on upGrad platforms. Kudos to upGrad.."*

**Savita Upadhaya, Experience: 4 Years**

*"It has been amazing journey with upGrad till now. Starting with their Program material to Live sessions to Mentor support helps one to always be on track and progress efficiently with Data Science program. My sincere Thanks to the entire team of upGrad. And Profs of IITB to show me the path and direction for my dream to become a Data Analyst."*

**Sidharth Mahapatra, Experience: 3 Years**

*"The concepts of R programming and Machine Learning will be taught by Prof. Chandrasekhar Ramanathan and Prof. G Srinivasaraghavan respectively. Both of them have been listed in top twenty prominent data science academicians list published by Analytics India Magazine. So you need not worry about quality of teaching in this program."*



#### **Tuhin Pal, Experience: 5 Years**

*"I appreciate the platform upGrad how they have arranged the modules and the assignments are quality ones. You will relish your college days again as the exams are felt like semester ones, you can't talk to anybody. Modules are locked till you complete the previous one so it feels like clearing a semester and going to the next one."*

#### **Harkirat Dhillon, Experience: 8 Years**

*"A dedicated regimen for studying the program and keep learning is the key to be successful and pass the program. This program will help build a strong foundation for successful transition to data science. Additionally, participating in hackathons and Kaggle competitions to solve real world problems will definitely give you an edge and land a job if one is willing to work hard."*

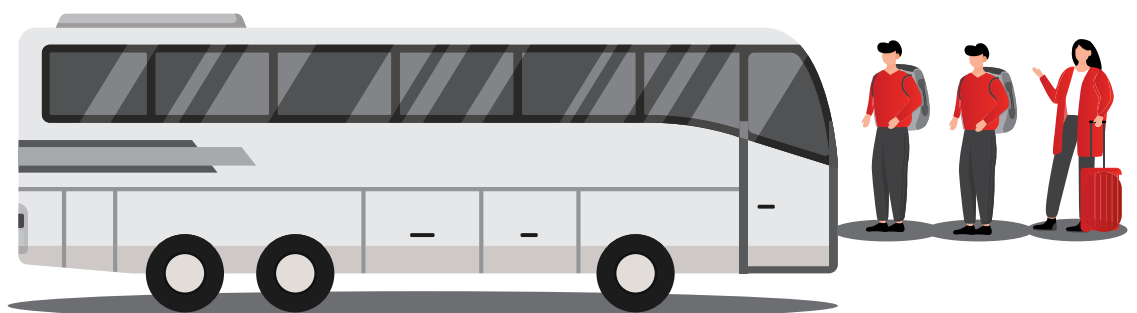


#### **Shravani Shahapure, Experience: 16 Years**

*"For someone who really wants to pursue career in the field of data science, it is worth to opt for the complete program by IIT B and upGrad. Data science is experimental science. We need to develop right kind of thinking ability to approach to the problems. And to develop this ability, we need experts direction. Knowing tools won't solve the problems always, we need to use them wisely and correctly. IITB and upGrad's online program on data science gives this opportunity and develop student for their future as they provide best professors, thought provoking assignments and case studies."*

#### **Sagar Tekwani, Experience: 2 Years**

*"A very well-structured and well-balanced program content which you won't get in other programs/nano-degrees. Being a beginner in DS, I found the structure of Executive PG Programme from IITB and upGrad most helpful. They even teach you most of the prerequisites with prep sessions before you even start the program. Being a working professional, it was neither too difficult nor too easy to keep up with the pace of the program."*





# Program Details and Admission Process

## PROGRAM DURATION AND FORMAT

7 Months | Online

## PROGRAM FEE

INR 99,000 (Inclusive of taxes)

## PROGRAM START DATES

Please refer to the [website](#) for program start dates.

## ELIGIBILITY

Bachelor's degree with 50% or equivalent passing marks.

No coding experience required.

## WEEKLY COMMITMENT (12 - 15 hours/week)



**6-7 HOURS**

Asynchronous learning time.



**6-7 HOURS**

Assignments and projects.



**1 LIVE SESSION**

Every two weeks

## SELECTION CRITERIA



### STEP 1: Complete Application Form

Fill out an application form online.



### STEP 2: Review and Shortlisting of Suitable Candidates

Our faculty will review all applications - considering the educational and professional background of an applicant. Following this, offer letters will be rolled out so you're assured a great peer group to learn and network with.



### STEP 3: Enrollment for Access to Prep Content

Make a quick block payment with assistance from our Loan partners where required, receive immediate access to the prep content and begin your upGrad journey.

## FOR FURTHER INFORMATION, CONTACT

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## COMPANY INFORMATION

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