



**SGMS Academy**  
Technology for Innovators

# DATA ANALYTICS WITH PYTHON & POWER BI

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



4000+  
Learners



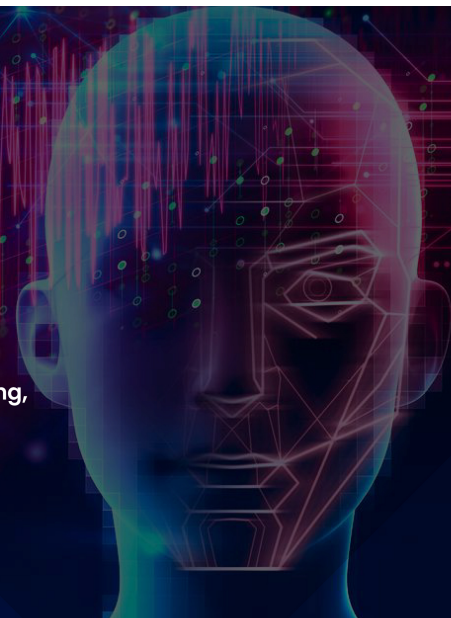
1:1 Personalized  
Mentorship



55% Average  
Salary Hike

# Data Analytics with Python & Power BI

This Data Analytics with Python & Power BI helps you master Power BI, Data Wrangling, Data Mining, Analytics, etc. Learn from working professionals and industry experts through real-time projects and case studies. Enroll in this training program and get Data Analytics certification.



## 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 Analytics professionals are equipped with various relevant skills fetching lucrative job offers



### Growing Analytics Industry

45.4% CAGR in the global Data Analytics industry



### Future-oriented Career

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



### Popular Degree

40% Data Analytics professionals have a master's degree



### High Demand

By 2022, India and US will face a demand supply gap of 430,000 Data Analytics professionals

## Our Credentials



**4000+**

Aspiring Active Students



**100+**

Industry-expert Instructors



**600+**

Hiring Partners



**500+**

Corporates Upskilled



**55%**

Average Salary Hike



**80%**

Low cost compare to other's

# About Program

This Data Analytics with Python & Power BI helps you master the domain of Data Analytics. In these online Data Analytics courses, you will gain business domain knowledge, data transformation, storytelling, understand the usage algorithm for solving complex business problems, Optimization techniques, data science project execution strategy and data visualization.



**Learning Format**  
Online



**40+ Hrs**  
Duration



**Career Services**  
by SGMS Academy



**Fee**  
₹6550/Course

## Key Highlights

- ✓ 50+ Live Sessions
- ✓ 200 Hrs Projects and Exercises
- ✓ Learn from IIT Madras Faculty
- ✓ Job Assistance
- ✓ Resume preparation and LinkedIn profile Review
- ✓ 24\*7 Support
- ✓ 218 Hrs Self-paced Videos
- ✓ 16+ Courses
- ✓ Flexible Schedule
- ✓ Lifetime Free Upgradation
- ✓ 1:1 with Industry Mentors
- ✓ 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



**24\*7 Technical Support**  
Speak to Subject Matter Experts anytime and clarify your queries instantly.



**Peer Networking and Group Learning**  
Improve your professional network and learn from peers through our innovative Peer Chat tool.



**Self-paced videos**  
Learn at your own pace with world-class content



**Gamified Learning**  
Get involved in group activities to solve real-world problems



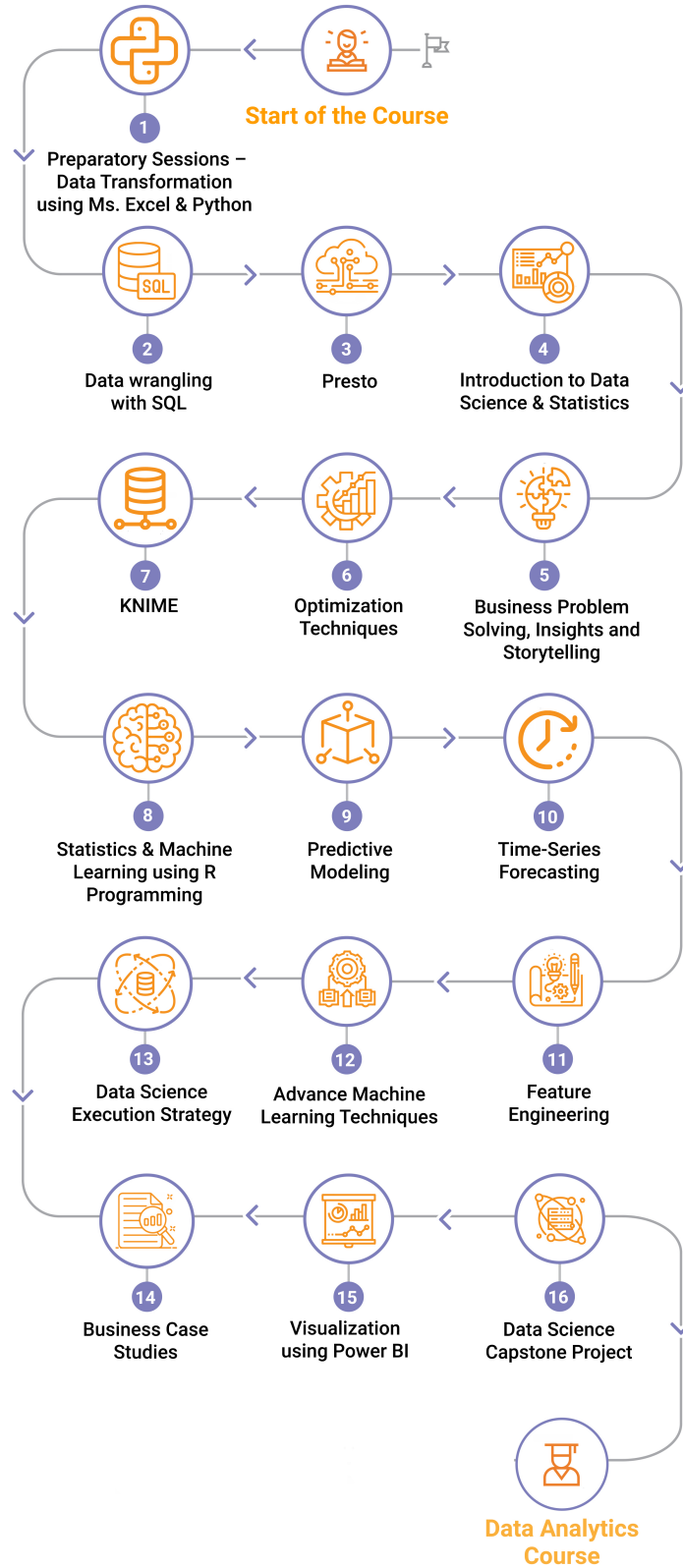
**Projects and Exercises**  
Get real-world experience through projects



**1:1 Personalized Learning**  
Hands-on exercises, project work, quizzes, and capstone projects

```
modifier_ob.select=1  
bpy.context.scene.objects.active = modifier_ob  
print("Selected" + str(modifier_ob)) # modifier ob is  
#mirror_ob.select = 0  
from bpy.context import selected_objects
```

## Live Courses



## 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

### Presto

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

## Module 4

### Introduction to Data Science & Statistics

- Descriptive Statistics
- Introduction to Probability
- Probability Distributions
- Hypothesis Testing and Estimation
- Goodness of Fit

## 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

## Module 6

### Optimization Techniques

- Linear programming
- Goal programming
- Integer programming
- Mixed integer programming
- Distribution and network models

## Module 7

### KNIME

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

## Module 8

### Statistics & Machine Learning using R Programming

- Programming with R
- Advance Statistics
- Data Mining

## Module 9

### Predictive Modeling

- Multiple linear regression
- Logistic regression
- Linear discriminant analysis

## Module 10

### Time-Series Forecasting

- Introduction to time-series
- Correlation
- Forecasting
- Autoregressive models

## Module 11

### Feature Engineering

- Handling unstructured data
- Machine Learning algorithms
- Bias variance trade-off
- Handling unbalanced data

```
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print("Selected" + str(modifier_ob)) # modifier ob is
    mirror_ob.select = 0
    bpy.context.selected_objects[0]
```

- Boosting
- Model validation

## Module 12

### Advance Machine Learning Techniques

- Hyper parameter optimization
- Advance Machine Learning Libraries – XGBoost
- Solving Problems on Kaggle

## Module 13

### Data Science Execution Strategy

- Framework to Data Science strategy
- Mapping Data Science with data architecture strategy
- Executing Data Science strategy

## Module 14

### Business Case Studies

- Marketing & retail analytics
- Social analytics
- Logistics & supply chain
- Financial analytics

## Module 15

### Visualization using Power BI

- Introduction to Power BI
- Data Extraction
- Data Transformation – Shaping & Combining Data
- Data Modelling & DAX
- 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 16

### Data Science Capstone Project

In the Data Science & Business Analytics Capstone project, you will use all the knowledge and skills you have acquired throughout this advanced certification program and get real world Industry project exposure.

## Skills to Master

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

## Tools to Master



# Course **Projects**

```
modifier_ob.select-1
bpy.context.scene.objects.active = modifier_ob
print("Selected" + str(modifier_ob)) # modifier ob is
    mirror_ob.select = 0
    bpy.context.scene.objects.active = modifier_ob
```

Projects cover the following industries:



Retail



Social Media



Supply Chain



Entrepreneurship



E-commerce



Banking



Healthcare



Insurance

Beginner

## Predicting class of a flower with petals data

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.

Beginner

## Data Analytics on Census dataset

The project is meant to analyze and predict whether an individual has an annual income of more than Rs 50000 or less using various machine learning techniques, some of which are supervised and unsupervised learning.

Beginner

## Fraud Detection

The project will be creating 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.

Intermediate

## Analyzing impact factors of the prepaid model in telecom

The goal of this project is to find the factors that have maximum impact on the preferences of the prepaid model. The project also aims at identifying the variables that are majorly correlated with the impacting factors.

Intermediate

## Pokemon Analysis

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.

Intermediate

## Stock Market Analysis

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.

Advance

## Comment Identity & Classification

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

Advance

## Book Recommender

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.

Advance

## Loan Approval Prediction

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.

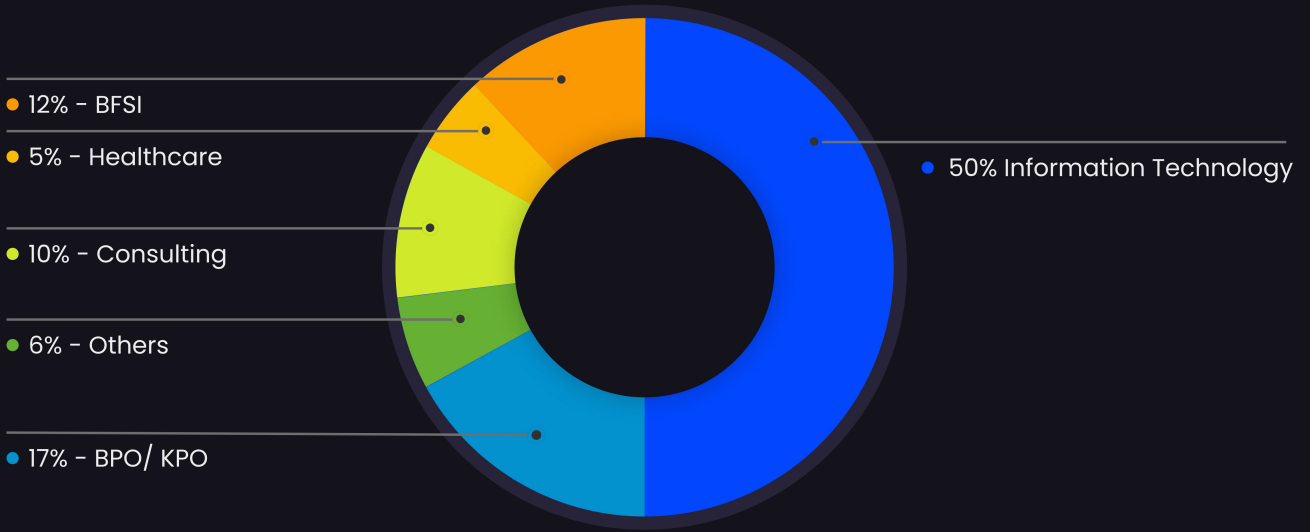
Advance

## Recommendation Engine using Netflix prize dataset

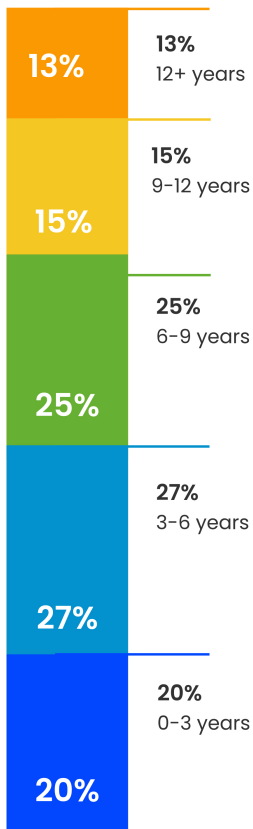
The recommendation engine is built using Netflix prize dataset that will collect the data from various sources of a user, anticipate their preferences and will recommend movies according to the user's behavior and choices made earlier.

# Meet the **Batch**

## Industries Our Learners Come From



## Work **Experience**



Some of their current employers include

amazon	citi	Capgemini
BOSCH	pwc	EY
accenture	Adobe	TATA CONSULTANCY SERVICES
vmware	Abbott	DELL



SGMS Academy's

# Career Services



**500+**  
Webinars



**600+**  
Job Shares



**600+**  
Hiring Partners



**55%**  
Avg. Salary Hike\*

## What Makes Us **Tick**



### Career-oriented Sessions

Attend 10+ career-oriented sessions by industry mentors and plan your career trajectory



### Profile Building

Craft a Data Analytics resume and LinkedIn profile and 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 Analytics



### Placement Assistance

Placement opportunities are provided once the learner is moved to the placement pool. Get noticed by our 400+ hiring partners.\*\*



### 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**



**Ramyasri Mandepudi**  
Recruiter at Goodwill Technologies

The trainers are amazing and the lectures included thorough understanding of all the concepts. Real life examples and the career mentoring sessions are useful at every step.



**Kevin K Wada**  
Oracle Developer at Free Agent

The course is thorough, well-structured and provides a comprehensive learning in the Data Analytics field. Also, the practice tests and projects helped me in building strong skills in analytics.



**Sampson Basoah**  
Tableau Developer

The course content is updated, industry-relevant and taught in-depth by the instructors. The instructors at Intellipaat are well-experienced. The Data Analytics course has helped me put the skills into practice