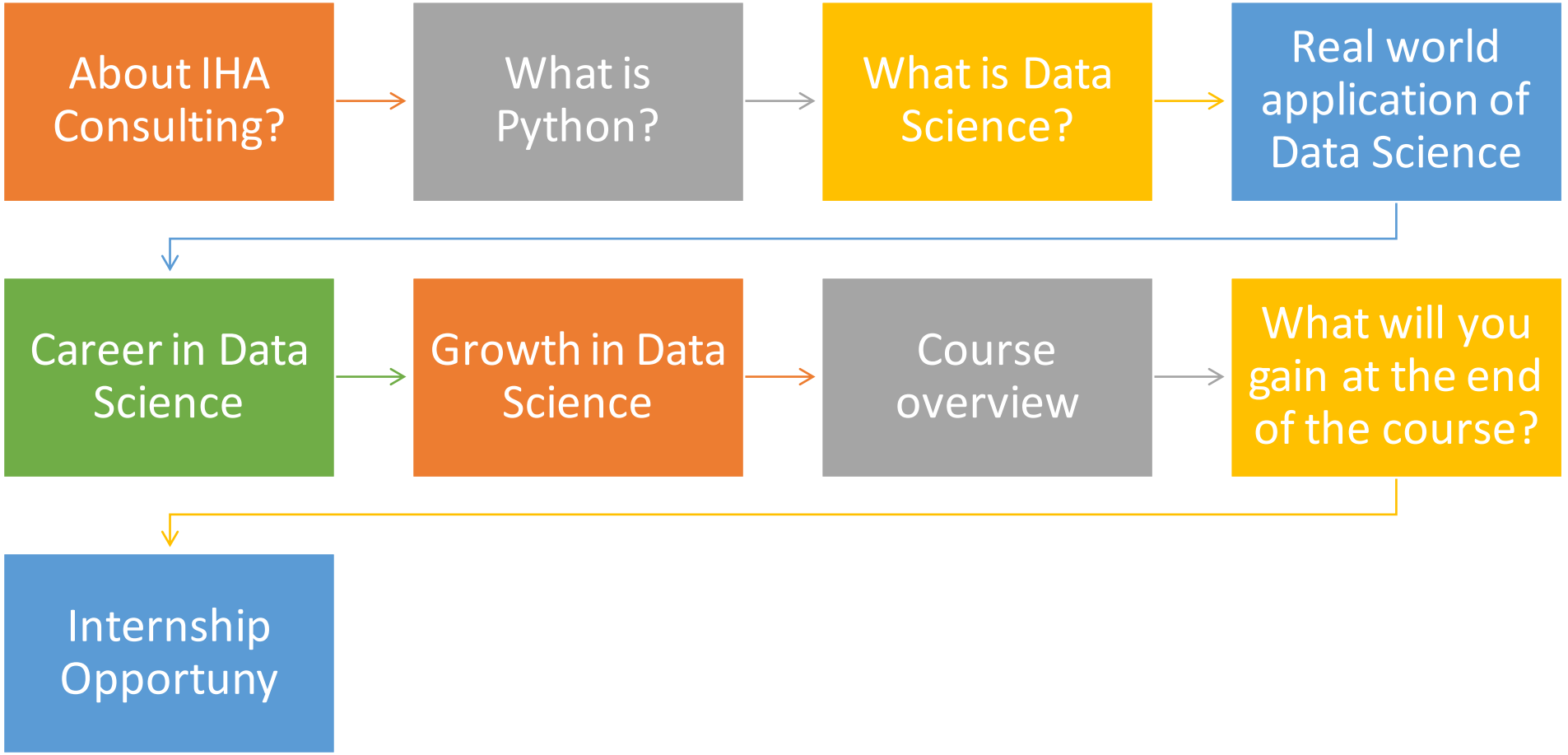
Become a Data Scientist

Data Science with Python

Presented by IHA CONSULTING SERVICES PVT. LTD.

Overview


About IHA Consulting?
What is Python?
What is Data Science?
Real world application of Data Science
Career in Data Science
Growth in Data Science
Course overview
What will you gain at the end of the course?
Internship Opportuny

About IHA Consulting

•

What is Python?

- Python is a high-level, general-purpose programming language.
- It is simple and easy to use, portable, extensible, built-in structure, and it is open-source.
- Python is a computer programming language often used to build websites and software, automate tasks, and conduct data analysis.
- It is one of the best language used by data scientist for various data science projects/application.
- Python provide great functionality to deal with mathematics, statistics and scientific function.

What is Data Science?

- Data science combines multiple fields, including statistics, scientific methods, artificial intelligence (AI), and data analysis, to extract value from data.
- Data science is an interdisciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge and insights from noisy, structured and unstructured data, and apply knowledge and actionable insights from data across a broad range of application domains.
- Data science practitioners apply machine learning algorithms to numbers, text, images, video, audio, and more to produce artificial intelligence (AI) systems to perform tasks that ordinarily require human intelligence. In turn, these systems generate insights which analysts and business users can translate into tangible business value.
- Data Science is a more forward-looking approach, an exploratory way with the focus on analyzing the past or current data and predicting the future outcomes with the aim of making informed decisions.

What is Data Science?

- A data scientist uses data to understand and explain the phenomena around them, and help organizations make better decisions.
- Data scientists are a new breed of analytical data expert who have the technical skills to solve complex problems – and the curiosity to explore what problems need to be solved.
- Businesses use data scientists to source, manage, and analyze large amounts of unstructured data.
- More than anything, what data scientists do is make discoveries while swimming in data. It's their preferred method of navigating the world around them.

Real world application of Data Science

- The field of Data Science is filled with wonderful applications. In this modern era of digitization, Data Science is making a huge difference in making businesses successful. Not only in business but fields like healthcare, aeronautics, robotics, medicine, etc., Data Science is the game-changer. Here is the list of real-world application of Data Science.
- E-mail Spam Filtering
- Website Recommendations
- Virtual Assistant
- Airline Route Planning
- Advanced Image Recognition
- Speech Recognition

Real world application of Data Science

- Healthcare Industry: Data Science is helping in efficient diagnosis, data management, medical research, etc.
- Medical Image Analysis
- Gaming
- Banking and Finance: Detecting and Preventing Frauds, Customer Data Management, Predictive and real-time analysis
- Weather predictions in agriculture sector.
- Logistics and Transportation: Reducing freight costs through delivery path optimization

Career in Data Science

- A data science is a very good career with tremendous opportunities for advancement in the future.
- Already, demand is high, salaries are competitive, and the perks are numerous – which is why Data Scientist has been called “the most promising career” by LinkedIn and the “best job in America” by Glassdoor.
- Data science has evolved from being only analytics and statistics to decisions, predictions, and actions that move the world.

Career in Data Science

- Data drives business decision-making today. During the pandemic, most operations moved to computerized stages across organizations, this gave boost to web-based business and volumes of data. Small and large organizations need to deal with this data, track down productive data assortment techniques, organize and analyze data to plan future possibilities.
- In 2021 alone, Glassdoor shows near 37,000 Data science jobs available, including Machine Learning Engineer, data analysts, business analysts, and financial analysts' positions available to all. While the job growth and interest for Data Scientists are high, companies are searching for skilled talent. Data scientists with expertise in programming language and progressed technical skills are bound to get selected at higher-paying positions with lucrative projects.

Growth in Data Science

- According to indiatoday.in, the demand for data scientists in India is at an all-time high, which is resulting in an upward career arc and generous pay from companies.
- Analysts predict that the country will have more than 11 million job openings by 2026. In fact, since 2019, hiring in the data science industry has increased by 46%. Yet around 93,000 jobs in Data Science were vacant at the end of August 2020 in India.
- There are several reports we can look at to get a measure of the global value of the data science industry. According to Grand View Research, in 2019, the global data science platform market size was valued at $3.93 billion. Other data from Statista shows that in 2021, the global big data market is predicted to be worth $64 billion.

Growth in Data Science

- When it comes to data analytics, another key area of data science, research shows that North America accounted for the largest market share in 2019, with a market value of just over $10 billion. Europe was the second-largest market in 2019, valued at around $6.43 billion.
- Other data from 2020 shows that there was a shortage of around 250,000 professionals with security and data science skills, showing a clear demand for those with the right skills.
- Data scientists will be the most in-demand profession in the next 5 years.

Data Science with python: Course Overview

- Ensure career success with this Data Science course. Learn this exciting branch of Artificial Intelligence with a program featuring of Applied Learning, interactive labs, hands-on projects, and mentoring.
- This course has 3 levels. Each of these levels has theoretical concept, hands-on session, mentoring and support.
- This course has a comprehensive course curriculum covering Statistics, key programming languages, Machine Learning algorithms, and more - with a Capstone project to culminate your learning experience.
- Work on real industry projects, get real-time feedback from mentors, and engage with your peers to discuss different solutions during live classes.

Data Science with python: Course Overview

Program Curriculum:

- **Level 1:**
- Python Programming
- Microsoft Excel for Data Analysis
- Working with MySQL using SQL

Data Science with python: Course Overview

Program Curriculum:

- **Level 2:**
- Mathematical computation with Numpy
- Data Manipulation using Pandas
- Data Visualization with Matplotlib
- Data Visualization with Seaborn
- Exploratory Data Analysis using Pandas
- Scientific Computing with SciPy

Data Science with python: Course Overview

Program Curriculum:

- **Level 3:**
- Visualization & Dashboards using Tableau
- Machine Learning algorithms for Supervised & Unsupervised ML
- Deep Learning with Keras
- Natural Language Processing
- Time Series Analysis

Capstone Project

What will you gain at the end of the course?

After the completion of this course, you will be able to:

- Analyse discrete data and structured data
- Apply statistical tools and techniques
- Write Python programs to do data analysis using Python libraries such as Pandas, NumPy
- Summarize and represent data visually using graphs, charts, and pivot tables
- Source, validate, clean, store and query data and perform data analysis
- Create data and Machine learning models for business forecasting and predictive analytics
- Analyse unstructured textual data
- Build neural network
- Complete a project including ML modelling: Business understanding -> Data preparation -> Data Analysis -> Prepare ML model -> Deploy ML Model -> Demo & Present Insights

Internship Opportunity at IHA Consulting

At the end of this course, you will get an opportunity to do internship with IHA consulting.