

# DATA SCIENCE CAREER GUIDE

A Comprehensive Playbook To  
Becoming A Data Scientist



# BECOME A PART OF THE DATA SCIENCE UPRISING

Over the last few years, technology has evolved at a rapid pace, enabling faster changes and processes. And organizations are opening up their doors to data science and unlocking its power, which increases the value of a data science professional who knows how to harness actionable insights out of petabytes of data.

Since data is the omnipresent force ruling our lives now, and will be for the foreseeable future, jobs in this domain are booming like never before. Professionals ahead of the curve will find it easy to keep pace with emerging jobs. 2020 is an exciting time for professionals to stay current with tech trends and acquire new-age tech skills.

Simplilearn's 2020 Data Science Playbook is your complete guide to the skills required, career opportunities available and the ideal learning path needed to propel a career in the thriving and lucrative field of machine learning. Our Playbook also provides the most trending technologies, the top companies that are hiring, and ways to jumpstart your career.

Read this Data Science Playbook for a personalized roadmap to a successful career, and take a sneak peek into the world that awaits you.



# MARKET STUDY FOR DATA SCIENCE ENTHUSIASTS



## What's Next for Data Science

Data Science has taken the world by storm. Everything in today's cloud-based business world moves fast, producing and compiling data at a rapid rate. The possibilities (and potential pitfalls) of managing and utilizing data operations are endless with new applications of Data Science being discovered every day—creating jobs across sectors and giving rise to new career paths.

## Data Science in Different Sectors

The field of Data Science and related technologies are drastically changing the way business is done across all industry sectors. These edge technologies are gradually bringing about transformational changes, and faster processes across sectors.

## The Expanding Field of Data Science

Organizations are using Data Science to enhance their products, business decisions, and marketing effectiveness. There has been a [29 percent](#) increase in demand for data scientists year over year and a dramatic upswing of 344% increase since 2013. Opportunities in the field are limitless, and job roles in Data Science promise plenty of possibilities and high-paying salaries.



Banking



Government



Healthcare



Manufacturing



Retail



Entertainment



Education



Transportation

# HOTTEST OPPORTUNITIES IN DATA SCIENCE

## Data Scientist

The [Harvard Business Review](#) acclaimed the job of a Data Scientist to be the 'Sexiest Job of the 21st century'. As a Data Scientist, you'll determine the business questions that need answers, and then come up with different approaches to try and solve the problem.

- Gather, merge and analyze data to gain insights, and simplify data problems to develop strategies and predictive models
- Use a wide variety of tools like Tableau, Python, Hive, Impala, to develop and test new algorithms for faster and more accurate data analytics



The average salary for a Data Scientist is **\$121,235**

## Top Companies Hiring Data Science Professionals



Career opportunities for Data Science professionals have grown exponentially to meet the demands of digitally transformed industries, and newer job roles keep emerging in the field.

## Top 10 Big Data skills:

- ✓ Data Mining
- ✓ Python
- ✓ AI
- ✓ Java
- ✓ Hadoop
- ✓ Data Visualization
- ✓ Probability and Statistics
- ✓ Machine Learning
- ✓ Apache Spark
- ✓ SQL

# MAP TO YOUR FUTURE

Get an in-depth understanding of mathematics that forms the basis of every numerical computation and algorithm in data science.

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## Mathematics

Statistics |  
Probability |  
Calculus

Have a sound database knowledge to deal with the structured data stored in RDBMS.



## Database knowledge

Oracle |  
MySQL |  
Cassandra

Understand and get hands-on experience in programming languages to implement various algorithms.



## Programming

Python | R | SAS

Master data engineering skills to clean and process a massive amount of data to avoid missing values



## Data Engineering

Data preprocessing |  
Data wrangling |  
SQL

Get an added advantage by learning Hadoop and Spark to easily store, process and manipulate data.



## Big Data

Hadoop | Spark

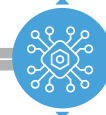
Get a thorough understanding of Deep Learning and its algorithms to work with vast volumes of unstructured data.



## Deep Learning

TensorFlow | Artificial Neural Network |  
Deep Belief Network |  
Generative Adversarial Network

Learn and implement machine learning algorithms to create predictive models.



## Machine Learning

Supervised learning |  
Unsupervised learning |  
Reinforcement learning

Master different data visualization tools to build interactive plots and dashboards to derive business insights.



## Data Visualization

Tableau | QlikView

Data  
Scientist

# LET THE LEARNING BEGIN

The growth of fields like Data Science and AI has increased the demand for talented minds to help solve pressing business challenges faster and better. However, quitting a full-time job to go back to school isn't realistic for most people, and this is where Simplilearn comes into play. We're an immersive online learning platform offering excellent courses with self-paced learning and live virtual classroom options available. With our highly-detailed course of study, you'll master everything you need to know to make a splash in these thriving fields. At Simplilearn, our industry experts deliver course content through a format that adapts to your pace of learning. Start one of our courses in Data Science today and kickstart your career in the lucrative field of Data Science.

## The courses we offer:

- ✓ Data Scientist Master's Program: Co-developed with IBM
- ✓ Data Analyst Master's Program
- ✓ Data Science Certification Training
- ✓ Business Analytics Expert Master's Program
- ✓ Data Science with Python Training Program
- ✓ Business Analytics Certification Training with Excel



# GET CERTIFIED. GET AHEAD.

Digital economy training | Driving innovation and accelerating careers

## Our Latest and Significant Awards:

- 2019 Stevie® Award for Innovation in Customer Service Management, Planning & Practice
- 2019 Stevie® Award for Customer Service Success
- 2018 EC-Council ATC Circle of Excellence Award
- 2017-19 Top 20 Online Learning Library Companies (by Training Industry Magazine)



**simplilearn**

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Simplilearn's 400+ training courses are designed and updated by world-class industry experts. Their blended learning approach combines e-learning classes, instructor-led live virtual classrooms, applied learning projects, and 24/7 teaching assistance. More than 40 global training organizations have recognized Simplilearn as an official provider of certification training. The company has been named the 8th most influential education brand in the world by LinkedIn.

For more information, visit [www.simplilearn.com](http://www.simplilearn.com).

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