



110+ Free Best Online Resources to Learn Data Science in 2021

Data Science is getting popular day by day. That's why everyone is trying to come to the Data Science field. But the challenge is finding the best resources to learn data science.

In this PDF, I am gonna share Best Online Resources to Learn Data Science including **Online Courses, Online Tutorials, YouTube channels, Data Science Blogs, EBooks, etc.**

Before I discuss the resources, I would like to mention the skills required in data science. So, in data science, the following skills are required-

1. **Programming Skills (Python & R)**
2. **Statistics or Probability**
3. **Machine Learning**
4. **Multivariate Calculus and Linear Algebra**
5. **Data wrangling.**
6. **Data Visualization.**
7. **Database Management**
8. **BigData**

The resources which I am gonna share in this **PDF** will cover these required skills for data science. And For your convenience, I have created separate sections for each resource. So let's start with online courses and tutorials-



Online Courses & Tutorials

1. **IBM Data Science Professional Certificate**– Coursera
2. **Become a Data Scientist**– Udacity
3. **Data Science Specialization**– Coursera
4. **Applied Data Science with Python Specialization**– Coursera
5. **Programming for Data Science with Python**– Udacity
6. **Data Science for Everyone**– Datacamp
7. **Data Scientist with Python**– Datacamp
8. **Data Scientist with R**– Datacamp
9. **Professional Certificate in Data Science**– edX
10. **MicroMasters® Program in Data Science**– edX
11. **The Data Science Course 2021: Complete Data Science Bootcamp**– Udemy
12. **Data Science Tutorial**–w3schools
13. **Data Scientist Masters Program**– Edureka
14. **Career Path Data Science**– Codecademy
15. **Data Science Tutorial**– DataFlair
16. **Python – Data Science Tutorial**– TutorialsPoint

Statistics & Probability

17. **Statistics with R Specialization**– Coursera
18. **Statistics and probability**– Khan Academy
19. **Statistics with Python Specialization**– Coursera
20. **Learn Statistics with Python**– Codecademy
21. **Basic Statistics**– Coursera



22. [Statistics – Probability-TutorialsPoint](#)
23. [Statistics for Data Science and Business Analysis– Udemy](#)
24. [Statistical Analysis with R for Public Health Specialization– Coursera](#)
25. [Intro to Statistics– Udacity](#)
26. [Probability Theory, Statistics, and Exploratory Data Analysis– National Research University Higher School of Economics](#)
27. [Probability and Statistics– University of London](#)
28. [Probability and Statistics in Data Science using Python– UCSanDiego](#)
29. [Probability – The Science of Uncertainty and Data– MITx](#)
30. [Fundamentals of Statistics– MITx](#)
31. [STATISTICS TUTORIALS: BEGINNER TO ADVANCED– Listen Data](#)
32. [Probability and Statistics– MathisFun](#)

Programming Language

33. [The Python Tutorial– PYTHON.ORG](#)
34. [Python for Everybody Specialization– University of Michigan](#)
35. [Introduction To Python Programming– Udemy](#)
36. [Python Core and Advanced– Udemy](#)



- 37. [Crash Course on Python](#)– **Google**
- 38. [Python for Absolute Beginners!](#)– **Udemy**
- 39. [Introduction to Python Programming](#)– **Udacity**
- 40. [Python 3 Tutorial](#)– **SOLOLEARN**
- 41. [Python 3 Programming Specialization](#)– **University of Michigan**
- 42. [R Programming](#) – **Johns Hopkins University**
- 43. [Programming for Data Science with R](#)– **Udacity**
- 44. [R Programming A-Z™](#)– **Udemy**
- 45. [Python Tutorial](#)– **W3Schools**
- 46. [R Tutorial](#)– **Tutorials Point**
- 47. [R Tutorial](#)– **Statmethods**

Mathematics

- 48. [Mathematics for Machine Learning Specialization](#)– **Imperial College London**
- 49. [Mathematics for Data Science Specialization](#)– **Coursera**
- 50. [Data Science Math Skills](#)– **Duke University**
- 51. [Introduction to Calculus](#)– **The University of Sydney**
- 52. [Calculus 1](#)– **Khan Academy**
- 53. [Introduction to Calculus](#)– **MathisFun**



Data Wrangling

54. [Python – Data Wrangling](#)– **TutorialsPoint**
55. [Excel to MySQL: Analytic Techniques for Business Specialization](#)– **Duke University**
56. [Learn SQL Basics for Data Science Specialization](#)– **University of California, Davis**
57. [SQL – MySQL for Data Analytics and Business Intelligence](#)- **Udemy**
58. [Modern Big Data Analysis with SQL Specialization](#)– **Cloudera**
59. [Data Warehousing for Business Intelligence Specialization](#)– **University of Colorado System**
60. [Data Wrangling with pandas](#) **Cheat Sheet**
61. [Python Data Wrangling Tutorial: Cryptocurrency Edition](#)– **Elite Data Science**

Data Visualization

62. [Tableau Tutorial](#)– **Tableau.com**
63. [Data Visualisation with Tableau](#)– **DataCamp**
64. [Data Visualization with Tableau Specialization](#)– **University of California, Davis**
65. [Data Visualization with Python](#)– **IBM**
66. [Data Visualization](#)– **Coursera**
67. [Data Visualization](#)– **Udacity**
68. [Data Visualization](#)– **TutorialsPoint**



So, these are **online courses and tutorials**. Now I am gonna share some YouTube tutorials for Data Science-

YouTube Videos

69. [Data Science Tutorial](#)– Great Learning
70. [Data Science Full Course](#)– Edureka
71. [Data Science Full Course For Beginners](#)– codebasics
72. [Data Science Full Course](#)– Simplilearn
73. [Learn Data Science Tutorial](#)– freeCodeCamp
74. [R Programming Tutorial](#)– freeCodeCamp
75. [Statistics for Data Science](#)– Great Learning
76. [Statistics – A Full University Course on Data Science Basics](#)–freeCodeCamp
77. [Statistics Course for Data Science | Statistics Course](#)– MarinStatsLectures-R Programming & Statistics
78. [Mathematics for Machine Learning \[Full Course\]](#)– Edureka
79. [Machine Learning Data Pre-processing & Data Wrangling using Python](#)– The AI University
80. [Data Visualization Tutorial](#)– by Krish Naik
81. [Power BI Tutorial From Beginner to Pro](#)– Avi Singh – PowerBIPro
82. [Data Visualization Tutorial For Beginners](#)- Simplilearn



83. [Data Visualization with D3.js – Full Tutorial Course-freeCodeCamp.org](#)

Data Science Blogs

- 84. [DataScience.com](#)
- 85. [Edwin Chen's Blog](#)
- 86. [The Shape of Data](#)
- 87. [Machine Learning Mastery](#)
- 88. [Data Science 101](#)
- 89. [MLTUT](#)
- 90. [Planet Big Data](#)
- 91. [Big Data Blog](#)
- 92. [Data36](#)
- 93. [Towards Data Science](#)
- 94. [Simply Statistics](#)
- 95. [NYC Data Academy Blog](#)
- 96. [Chris Ablon's Blog](#)
- 97. [Algobeans](#)
- 98. [Daniel Nee's Blog](#)
- 99. [Data Blogger](#)
- 100. [Data Aspirant](#)
- 101. [Data Mining Research](#)



Data Science Ebooks

102. **Journey to Data Scientist: Interviews with More Than Twenty Amazing Data Scientists** by Kate Strachnyi
103. **Learn Python the Hard Way** by Zed A. Shaw
(download PDF [here](#))
104. **R for Data Science** by Hadley Wickham (download PDF [here](#))
105. **An Introduction to Statistical Learning** by Gareth James, Daniela Witten, Trevor Hastie, and Robert Tibshirani (download the pdf version of this book from [here](#))
106. **Probability and Statistics for Data Science** by Norman Matloff
107. **The Art of Statistics: How to Learn from Data** by David Spiegelhalter (download the PDF [here](#))
108. **Data Analysis From Scratch With Python** by Peters Morgan (Download the PDF [here](#))
109. **Python for Data Analysis: Data Wrangling with Pandas, NumPy, and IPython** by Wes McKinney
(download the PDF [here](#))
110. **Data Visualization: A Practical Introduction** by Kieran Healy (download the PDF [here](#))
111. **Data Visualisation: A Handbook for Data-Driven Design** by Andy Kirk (download the PDF [here](#))
112. **The Data Wrangling Workshop** by Brian Lipp



Note- I hope these resources will definitely help you to learn and master data science. I would suggest you **save this PDF** for future referrals. And **share with others**.