

# 30 Best Data Science Books to Read in 2023

[ARTIFICIAL INTELLIGENCE](#)[BEGINNER](#)[BLOCKCHAIN](#)[BUSINESS ANALYTICS](#)[CLOUD COMPUTING](#)[COMPUTER VISION](#)[DATA ENGINEERING](#)[DATA VISUALIZATION](#)[LEARNING PATH](#)[LISTICLE](#)[MACHINE LEARNING](#)[PYTHON](#)[TIME SERIES](#)

## Introduction

Data science has taken over all economic sectors in recent times. To achieve maximum efficiency, every company strives to use various data at every stage of its operations. Each aspect of data science, like data preparation, the importance of big data, and the process of automation, contributes to how data science is the future of the digital world. People should become acquainted with at least the fundamental algorithms and tools to evaluate the data in their particular fields, better comprehend the trends and ultimately better judge.

The Data Science books I will share in this article will help you somehow, even if you have no prior background in data engineering, data mining or even computer science but want to start now. You can always start learning if you've set your mind to it so do not let any setback stop you from learning and growing. Even if you are already engaged in data science, you must know how crucial it is to advance your skills and employ sophisticated algorithms in real life for improved outcomes. I've listed 30 of the best data science books in this article that are simply a must-read for your 2023 reading list. This list is by no means a comprehensive one.

Because data science involves many topics besides computing, such as mathematics, probability, statistical learning, programming, [machine learning](#), and more, learning the subject from books will help you thoroughly understand the discipline.

"If you only read the books that everyone else is reading, you can only think what everyone else is thinking." – Haruki Murakami

## Table of Contents

1. [Is it possible to learn Data Science on your own?](#)
2. [Top 10 Books Data Science Aspirants / Beginners Should Read](#)
3. [Data Science for Beginners, by Andrew Park](#)
4. [Data Science for Dummies \(2nd Edition\), by Lillian Pierson](#)
5. [Introduction to Probability](#)
6. [R for Data Science by Hadley Wickham & Garrett Golemund](#)
7. [Data Science from Scratch by Joel Grus](#)
8. [Probability: For the Enthusiastic Beginner](#)
9. [Build a Career in Data Science, by Emily Robinson and Jacqueline Nolis](#)
10. [Naked Statistics: Stripping the Dread from Data \(January 2014\)](#)
11. [Introduction to Machine Learning with Python: A Guide for Data Scientists](#)
12. [Practical Statistics for Data Scientists](#)

13. [Top 20 Data Science books for Data Science Professionals](#)
14. [Smarter Data Science: Succeeding with Enterprise-Grade Data and AI Projects, by Neal Fishman, Cole Stryker, and Grady Booch](#)
15. [Essential Math for Data Science: Calculus, Statistics, Probability Theory, and Linear Algebra, by Hadrien Jean](#)
16. [Storytelling with Data: A Data Visualization Guide for Business Professionals](#)
17. [The Hundred-Page Machine Learning Book](#)
18. [Machine Learning](#)
19. [Deep Learning](#)
20. [Statistics in Plain English](#)
21. [Data Science and Big Data Analytics](#)
22. [Head First Statistics](#)
23. [Think Stats: Probability and Statistics for Programmers](#)
24. [Python for Data Analysis](#)
25. [Hands-On Machine Learning](#)
26. [The Master Algorithm](#)
27. [Artificial Intelligence: A Modern Approach](#)
28. [Artificial Intelligence for Humans](#)
29. [Natural Language Processing with Python](#)
30. [Foundations of Statistical Natural Language Processing](#)
31. [Speech and Language Processing](#)
32. [Business Analytics- The Science of Data-driven Decision Making](#)
33. [An Introduction to Probability Theory and its Applications](#)

## Is it Possible to Learn Data Science on your Own?

Data science can be learned independently, yes. Because of the variety of internet resources, including free and paid courses, tutorials, books, and blogs, anyone with the discipline and commitment may master data science abilities. However, the method needs significant commitment because learning data science on your own may be challenging and time-consuming.

To start learning data science on your own, build a strong foundation in the principles of programming, statistical concepts, and data manipulation. Many online resources and platform courses, such as Analytics Vidhya, Coursera, edX, and DataCamp, can help you with this.

The key is to practice your skills by working on projects and challenges from the real world while being persistent, patient, and consistent in your learning. You can acquire mentorship, counsel, and support by joining online communities and attending data science-related events and meetings. Once you've established a solid foundation, you can look into more complicated topics like machine learning, deep learning, and data visualisation.

Data science jobs are one of the most lucrative and well-liked ones, and it's expected to remain cutting-edge and challenging for another ten years or more.

## Top 10 Books Data Science Aspirants / Beginners Should Read

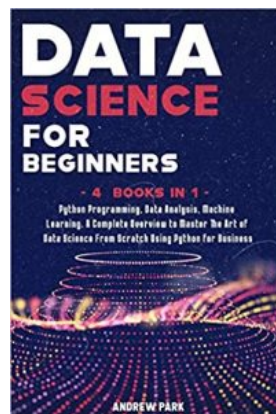
I have always had an inclination towards video tutorials and lectures when learning something on my own via the internet. Like many of you, I discovered that it was easier to understand and avoid the discomfort of reading the available books. Until recently, I generally shared this opinion until I came across authors or publishers who removed the "boring" element from topic books and made them far more fascinating.

All of this started when one of my highly intelligent friends suggested that I read books because they provide more information and aid in developing reading and comprehension, two abilities that are crucial for everyone. I was first apprehensive about doing that unless he specified a few writers and publishers whose books are highly engaging and interactive. I was curious, "Does something like this actually exist?" So I gave it a shot to alleviate my doubts and found a new world of amazing novels I could read for hours.

I'm sharing with you the books and publishers whose works will cause you to think twice about giving up reading completely. There is nothing like opening your mind to a world of knowledge condensed into a few hundred pages. There is a magic and allure to books that I have never found in any other learning medium.

## **Data Science for Beginners, by Andrew Park**

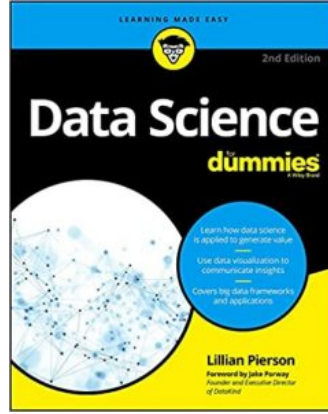
This data science handbook offers a strong foundational grasp of Python, data analysis, and machine learning for those who are completely new to the field. Each book offers tutorials and step-by-step instructions on how to use the well-liked Python programming language to build neural networks, interact with data, and learn the fundamentals.



[Click here for the link to the Book](#)

## **Data Science for Dummies (2nd Edition), by Lillian Pierson**

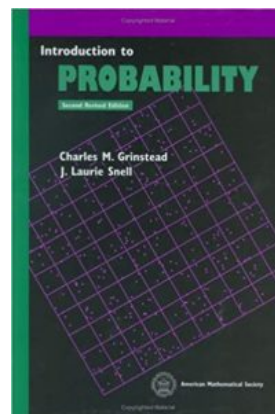
Data Science for Dummies is a terrific starting point for those new to the topic. Lillian Pierson's book covers the fundamentals of data science, including MPP platforms, Spark, machine learning, NoSQL, Hadoop, big data analytics, MapReduce, and artificial intelligence. Given that its target audience is made up of IT professionals and technology students, the term may be a little misleading. Instead of being a practical instruction manual, it provides a thorough review of data science that simplifies the complicated subject.



[Click here for the link to the Book](#)

## Introduction to Probability

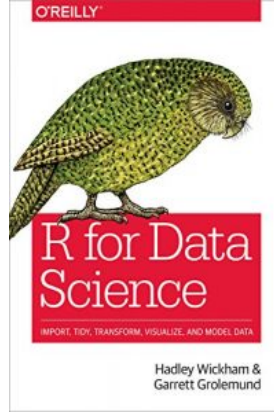
This is an introductory book that covers fundamental topics in probability. This book by J. Laurie Snell and Charles Miller Grinstead is a thorough text created with college graduates in mind. You may be asking why I said that. It's because I want to emphasise that the best way to begin studying a subject is with a book designed for students who have never studied it before.



[Click here for the link to the Book](#)

## R for Data Science by Hadley Wickham & Garrett Grolemund

The target audience for this book is anyone interested in or enthusiastic about using the R programming language. You should read this book if you're thinking about picking up a new language to use for data science tasks or doing something else interesting or unusual in the field of data science. Everything will be explained to you in the books. Absolutely worth a look.



[Click here for the link to the Book](#)

## Data Science from Scratch by Joel Grus

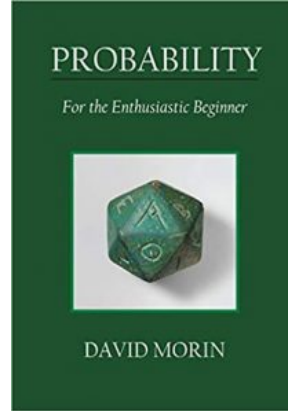
Beginning with a crash course on Python, the book takes you on to topics like data visualisation, probability, hypothesis testing, linear algebra, statistics, and many other data-related topics, along with machine learning, neural networks, recommender systems, network analysis, and other related topics. It's a complete product. Therefore, you should read it.



[Click here for the link to the Book](#)

## Probability: For the Enthusiastic Beginner

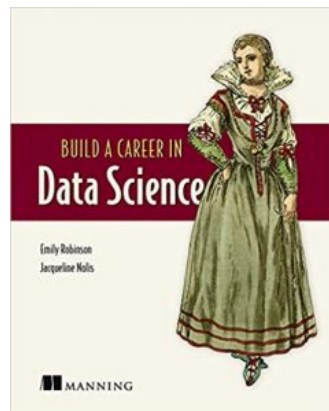
This book by David Morin is an excellent text for beginners. While it was intended for college students, everyone who wants to master probability from scratch will value the writing style. Combinatorics, the law of big numbers, the central limit theorem, the laws of probability, Bayes' theorem, expectation value, variance, probability density, common distributions, correlation, and regression are all discussed.



[Click here for the link to the Book](#)

## **Build a Career in Data Science, by Emily Robinson and Jacqueline Nolis**

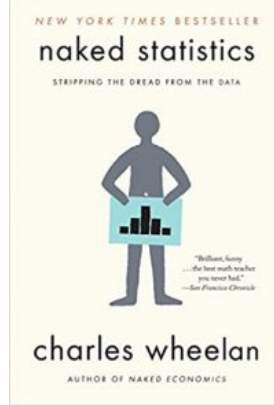
It is not the same as preparing for a job to comprehend the foundational mathematics, theories, and technologies that makeup data science. 'Build a Career in Data Science' is more of a career manual than a typical book on data science, as the title suggests. The writers aimed to close the knowledge gap between college and getting your first job (or advancing in your current data science career). The lifecycle of a typical data science project, how to adjust to business needs, how to get ready for a management position, and even advice on handling challenging stakeholders are all covered in this book.



[Click here for link to the Book](#)

## **Naked Statistics: Stripping the Dread from Data (January 2014)**

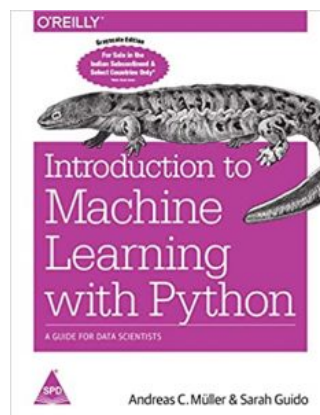
A good book by Charles Wheelan for laypersons on data and statistics. This book is for you if you want to learn data science but it's been a while since your first math course. Ideally, it will assist you in gaining confidence and intuition regarding the practical applications of statistics.



[Click here for link to the Book](#)

## Introduction to Machine Learning with Python: A Guide for Data Scientists

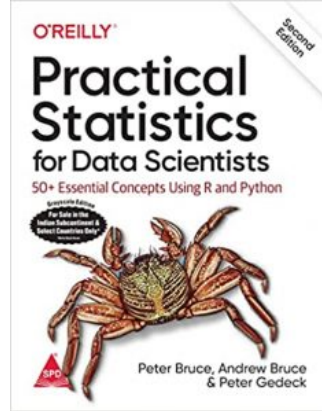
Knowledge of Machine Learning is critical for a data scientist. This book by Andreas C. Müller and Sarah Guido helps you cover the basics of Machine Learning. If you practice with the book for a substantial time, you can build machine learning models on your own. This book has all the examples with Python, but even if you do not have prior knowledge of Python programming language, you will be able to learn it through this book that very well serves as a python data science handbook. This book is for beginners to understand the basics of ML and Python.



[Click here for link to the Book](#)

## Practical Statistics for Data Scientists

If you're just starting out, this book will offer you a comprehensive summary of every concept you need to understand in order to learn data science. The book provides adequate information about all the high-level concepts, including randomization, sampling, distribution, sample bias, etc., without being overly comprehensive. Each of these ideas is clearly discussed, and examples are provided along with an explanation of how the ideas apply to data science. An overview of ML models is another pleasant surprise in the book.



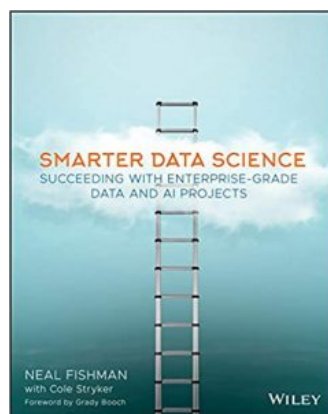
[Click here for link to the Book](#)

## Top 20 Data Science books for Data Science Professionals

### Smarter Data Science: Succeeding with Enterprise-Grade Data and AI Projects, by Neal Fishman, Cole Stryker, and Grady Booch

Data science is too frequently forced into a corner in the corporate world and doesn't always show up when it's most required. Even the smartest and most skilled data scientists won't advance very far in their careers if they can't have an effect on the rest of the company. These flaws are addressed in the book Smarter Data Science by examining the causes of data science projects' frequent failures at the business level and suggesting solutions.

This book on data science is intended to assist directors, managers, IT specialists, and analysts in scaling their data science initiatives efficiently so that they are foreseeable, repeatable, and eventually advantageous to the entire enterprise. You'll discover how to develop meaningful data science programmes and successfully win over everyone in your organisation.



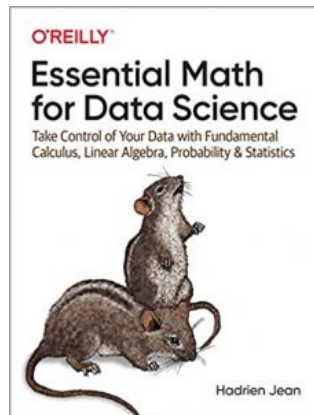
[Click here for the link to the Book](#)

### Essential Math for Data Science: Calculus, Statistics, Probability Theory, and Linear Algebra, by Hadrien Jean



While it is possible to enter the field of data science without having a thorough understanding of mathematics at its root, a data scientist who is truly effective and diverse should have a strong background in mathematics. Hadrien Jean's *Essential Math for Data Science* aims to clarify the mathematics underpinning deep learning, machine learning, and data science. This book will assist you in developing mathematical fluency to increase your data science capabilities, whether you're a data scientist without a background in mathematics or a developer looking to add data analysis to your arsenal.

The 'Essential Math for Data Science' book also discusses machine learning frameworks like TensorFlow and Keras and shows how Python and Jupyter may be used for plotting data and visualising space transformations.

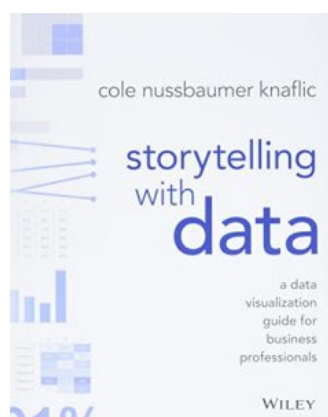


[Click here for the link to the Book](#)

## Storytelling with Data: A Data Visualization Guide for Business Professionals

*Storytelling with Data* is a book written by Cole Nussbaumer Knaflic. This book discusses the fundamentals of effective data visualisation and communication. Most of this book's lessons are theoretical, but it includes several practical examples you may use in your next graph or presentation immediately.

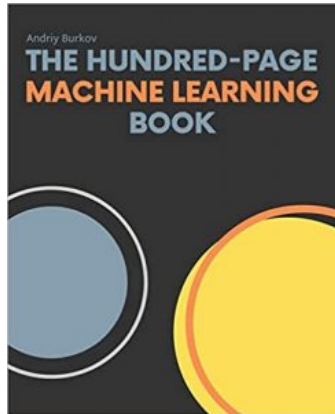
This book also teaches the reader how to dig beyond standard tools to get to the essence of their data. It also discusses the topic of using your data to create a captivating and informative narrative. This book can be a compelling read for those interested in data science for business.



[Click here for the link to the Book](#)

# The Hundred-Page Machine Learning Book

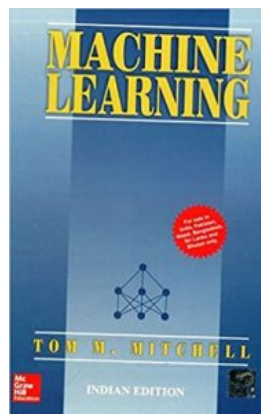
This book by Andriy Burkov is amazing. I struggled to find a book that could quickly convey challenging subjects and equations after reading many books that attempted to teach machine learning from numerous approaches and perspectives until Andriy Burkov managed to do it in roughly 100 pages. It is elegantly written, simple to comprehend, and has received the support of influential thinkers like Peter Norvig. Must I say more? Every data scientist, regardless of experience level, needs to read this book.



[Click here for the link to the Book](#)

## Machine Learning

Tom Mitchell's book on machine learning was the go-to resource for understanding the mathematics underlying various techniques and algorithms before all the hype. Before beginning, I'd advise brushing up on your math. Yet, you don't need prior knowledge of AI or statistics to comprehend these ideas. It is absolutely worth adding to your collection.

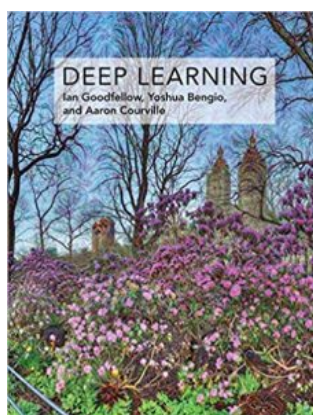


[Click here for the link to the Book](#)

## Deep Learning

What a wonderful group of writers: Ian Goodfellow, Yoshua Bengio, and Aaron Courville! The greatest resource for novices is generally agreed to be the book "Deep Learning." It is organised into Deep Learning

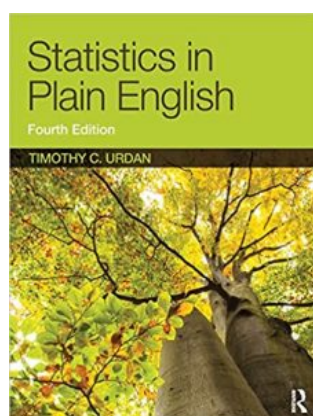
Research, Contemporary Practical Deep Learning Frameworks, and Applied Math and Machine Learning Fundamentals. It is currently the deep learning community's most frequently mentioned book. This will be your buddy anytime you begin your Deep Learning trip.



[Click here for the link to the Book](#)

## Statistics in Plain English

Timothy C. Urdan has developed a book for complete beginners that is wonderfully written and engaging. The explanations and writing style live up to the subtitle "Statistics in Simple English." It's so brilliant that you could recommend it to any non-technical person, and they would get the hang of these topics; It is that good!



[Click here for the link to the Book](#)

## Data Science and Big Data Analytics

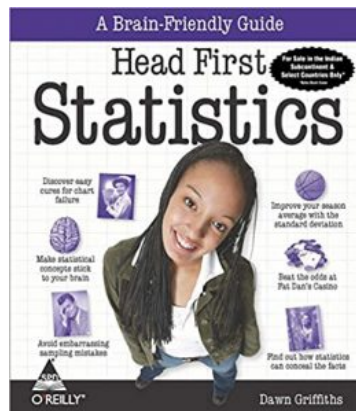
EMC education service has published a book titled Data Science and Big Data Analytics. One of the top data science books available on Amazon, it covers the range of techniques, approaches, and equipment data scientists employ. The book focuses on principles, concepts, and real-world examples. It applies to any industry, technological setting, and educational process. It is supported and explained with examples you can replicate using open-source software.



[Click here for the link to the Book](#)

## Head First Statistics

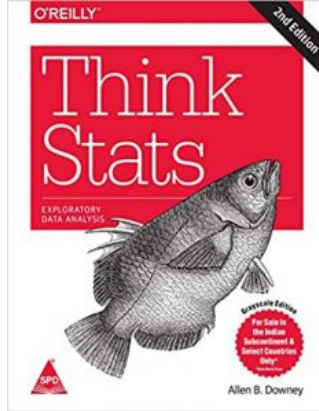
Dawn Griffiths is the author of the book Head First Statistics. The author makes this often dull subject come to life by teaching you everything you need to know about statistics through readings packed with riddles, narratives, quizzes, and real-life illustrations. You can learn statistics from this book and utilize them to comprehend and support important issues. The use of graphs and charts to visually show data is also covered in the book. Last but not least, the book demonstrates how to compute probability, expectation, etc.



[Click here for the link to the Book](#)

## Think Stats: Probability and Statistics for Programmers

This book by Allen B. Downey is at the top of most lists of books about data science. You can access resources like data files, codes, solutions, etc. Those familiar with Python's fundamentals will find it extremely helpful. Examples from the real world are used to illustrate the language.

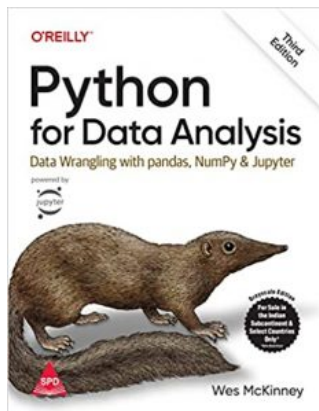


[Click here for the link to the second edition of the book](#)

[Click here for a PDF of the first edition of the Book](#)

## Python for Data Analysis

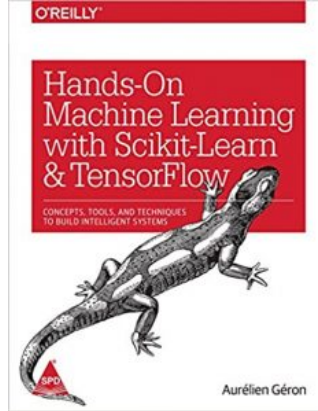
[Python](#) is yet another popular programming language in data analytics. Moreover, data science relies on analytics. So, this book by Wes McKinney serves as a comprehensive introduction to data science for those learning the fundamentals of Data Analytics using Python. The book is fast-paced yet simple. It is brilliantly organised and arranged for the readers and provides a glimpse into the world of data scientists and analysts and their work types.



[Click here for link to the Book](#)

## Hands-On Machine Learning

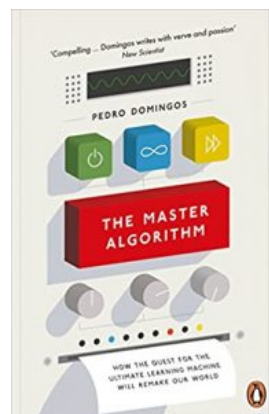
Aurélien Géron is the author of the Data Science book Hands-On Machine Learning. You can learn the theories, methods and machine learning algorithms for creating intelligent systems from this book. Also, you'll master a variety of methods, working your way up to deep neural networks from simple linear regression. The only prerequisite is programming experience, and each chapter of this book helps you put what you've learned into practise.



[Click here for the link to the Book](#)

## The Master Algorithm

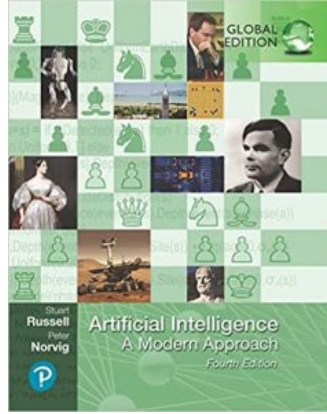
If you're looking for a technical book on AI, the Master Algorithm is definitely not it. Instead, it is a superb book on how machine learning changes business, politics, science, and even warfare. It is a smart and stimulating book about where AI is at the moment and where it might lead the human race in the future. Will there ever be one algorithm (also known as "The Master Algorithm") that can extract all knowledge from data? Come along with Pedro Domingos on his quest.



[Click here for the link to the Book](#)

## Artificial Intelligence: A Modern Approach

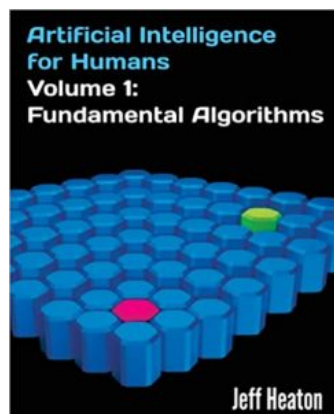
This book, written by Stuart Russell and Peter Norvig, is the leading book in Artificial Intelligence. This book is mentioned or cited in the curriculum of more than 1300 universities across more than 100 countries. Given the authors' backgrounds, the book's 1100 pages are hardly unexpected. This can be regarded as the holy book of artificial intelligence because it covers the entire spectrum of AI components, including speech recognition, autonomous driving, machine translation, and computer vision.



[Click here for the link to the Book](#)

## Artificial Intelligence for Humans

What fundamental algorithms are at the heart of artificial intelligence? The 222 pages of this book by Jeff Heaton include much technical information about that. This is the first book in a series on artificial intelligence approaches (dimensionality, distance metrics, clustering, error calculation, hill climbing, Nelder Mead, and linear regression). Moreover, there is an accompanying website with examples from the book and a GitHub repository containing the code.

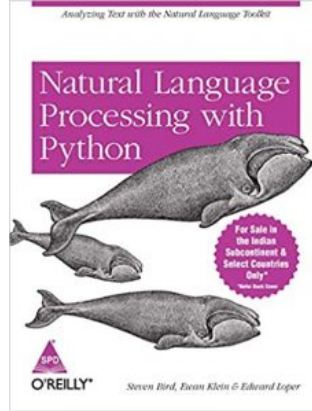


[Click here for the link to the Book](#)

## Natural Language Processing with Python

This book in the collection is written by Steven Bird, Ewan Klein, and Edward Loper and follows the 'learn-by-doing' philosophy. You will learn Python ideas that you otherwise wouldn't have and use the NLTK package to traverse the NLP world (Natural Language Toolkit).

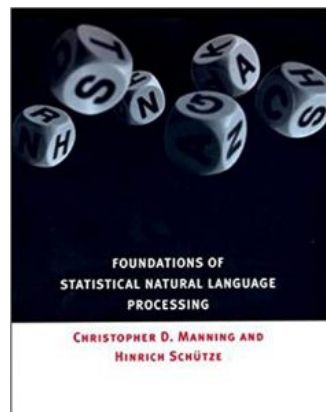




[Click here for the link to the Book](#)

## Foundations of Statistical Natural Language Processing

This text, which was published nearly two decades ago, is still a great introduction to [natural language processing](#). It contains a fairly thorough overview of the more general NLP subtopics, including Probabilistic Parsing, Parts-of-Speech Tagging, and Text Categorization, among other things. The writers have given a thorough explanation of the language and mathematical underpinnings. Remember that this book by Christopher Manning and Hinrich Schütze is fairly comprehensive.

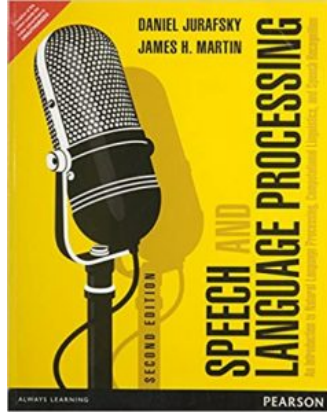


[Click here for the link to the Book](#)

## Speech and Language Processing

This book strongly emphasizes real-world applications and scientific evaluation of natural language and speech. I chose to include this book so that we could look into speech recognition in addition to text and broaden our views. And why shouldn't we? It's a field of study that is growing at the moment, with numerous applications appearing every day. Jurafsky and Martin wrote this comprehensive book on computational linguistics and natural language processing; it comes straight from the masters.



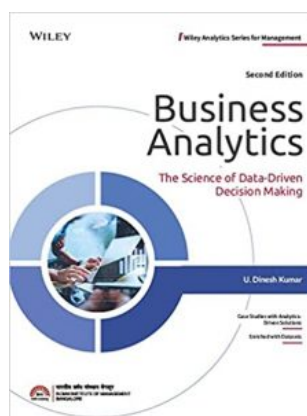


[Click here for the link to the Book](#)

## **Business Analytics- The Science of Data-driven Decision Making**

This fantastic, in-depth book provides comprehensive information by outlining both the theory and practical applications. The author takes a sophisticated approach to the subjects and gives several case studies that are simple to follow. The book includes all the information you need to get started on data science, including economics, statistics, and finance. The book was produced with much effort and experience, and it is evident in how insights are presented.

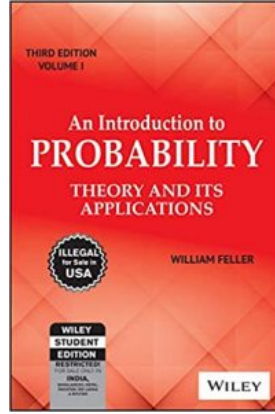
It effectively combines low-level and high-level concepts and contains statistical and analytical tools and machine-learning approaches. Towards the book's end, you will also discover information regarding scholastic models and six sigma.



[Click here for the link to the second edition of the Book](#)

## **An Introduction to Probability Theory and its Applications**

It is a comprehensive guide to the theory and practical applications of probability theory, as stated in the book's summary. If you truly want to go into the field of probability, I suggest reading this one by William Feller. It's a pretty thorough manual; therefore, a beginner might not enjoy it. You can get away with reading other probability books described above if you're learning probability just for the purpose of entering the data science field.



[Click here for the link to the Book](#)

## Conclusion

That's it for this article. I hope that these Data Science books bring more shine to your skillset. Keep Growing, Keep Reading, and Keep Flourishing.

In addition to being one of the most lucrative and well-liked careers to date, data science will likely continue to be innovative and difficult for another ten years or more. There will be many opportunities for well-paying [data science](#) employment opportunities that offer space for growth. You may access AV's training and certification options online from any location, and they combine the benefits of self-paced tutorials and live instructor-led classes. Start right away

---

Article Url - <https://www.analyticsvidhya.com/blog/2023/02/30-best-data-science-books-to-read-in-2023/>



[\*\*Swati Sharma\*\*](#)