

Data Science Concepts and Techniques with Applications

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Data Science Foundation

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The Data Science Foundation is pleased to provide information about a book written by one of our members and recently published by Springer

As this textbook is about data science, the first question it immediately begs is: What is data science? It is a surprisingly hard definition to nail down. However, for us, data science is perhaps the best label for the cross-disciplinary set of skills. It comprises three distinct and overlapping areas: firstly, statistician who knows how to model and summarize the data, data scientist who can design and use algorithms to efficiently process the data, and finally the domain expert who will formulate the right questions and put the answers in context. So it could be said that data science is not a new domain of knowledge to learn, but a new set of skills that you can apply within your current area of expertise.

This book is divided into three parts. The first section is an introduction to data science. Starting from the basic concepts, the book will highlight the types of data, its use, its importance and issues that are normally faced in data analytics. Followed by discussion on wide range of applications of data science and widely used techniques in data science. The second section is devoted to the tools and techniques of data science. It consists of data pre-processing, feature selection, classification and clustering concepts as well as an introduction to text mining and opinion mining. And finally, the third section of the book focuses on two programming languages commonly used for data science projects i.e. Python and R programming language.

An attempt is made to keep the book as self-contained as possible. Although this book primarily serves as a textbook, it will also appeal to industrial practitioners and researchers due to its focus on applications and references. The book is suitable for both undergraduate and postgraduate students as well as those carrying out research in data science. It can be used as a textbook for undergraduate students in computer science, engineering, and mathematics. It can also be accessible to undergraduate students from other areas with the adequate background. The more advanced chapters can be used by postgraduate researchers intending to gather a deeper theoretical understanding.

Further information is available on [Springer](#)

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About the Data Science Foundation

The Data Science Foundation is a professional body representing the interests of the Data Science Industry. Its membership consists of suppliers who offer a range of big data analytical and technical services and companies and individuals with an interest in the commercial advantages that can be gained from big data. The organisation aims to raise the profile of this developing industry, to educate people about the benefits of knowledge based decision making and to encourage firms to start using big data techniques.

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