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Titolo Functional data structures in R: advanced statistical programming in R

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Soggetti Computer programming

Data structures (Computer science)

Programming languages (Electronic computers)

Mathematical statistics

R (Computer program language)

Programming Techniques

Data Structures

Programming Languages, Compilers, Interpreters Probability and Statistics in Computer Science

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Nota di bibliografia Includes bibliographical references and index.

Sommario/riassunto Get an introduction to functional data structures using R and write

more effective code and gain performance for your programs. This book teaches you workarounds because data in functional languages is not mutable: for example you'll learn how to change variable-value bindings by modifying environments, which can be exploited to emulate pointers and implement traditional data structures. You'll also see how, by abandoning traditional data structures, you can manipulate structures by building new versions rather than modifying them. You'll discover how these so-called functional data structures are different from the traditional data structures you might know, but are worth understanding to do serious algorithmic programming in a functional language such as R. By the end of Functional Data Structures in R, you'll

understand the choices to make in order to most effectively work with data structures when you cannot modify the data itself. These techniques are especially applicable for algorithmic development important in big data, finance, and other data science applications. You will: Carry out algorithmic programming in R Use abstract data structures Work with both immutable and persistent data Emulate pointers and implement traditional data structures in R Implement data structures in C/C++ with some wrapper code in R Build new versions of traditional data structures that are known.