DESCRIPTION

Based on the authors’ market leading data structures books in Java and C++, this textbook offers a comprehensive, definitive introduction to data structures in Python by respected authors. Data Structures and Algorithms in Python is the first mainstream object-oriented book available for the Python data structures course. Designed to provide a comprehensive introduction to data structures and algorithms, including their design, analysis, and implementation, the text will maintain the same general structure as Data Structures and Algorithms in Java and Data Structures and Algorithms in C++.

ABOUT THE AUTHOR

Michael Goodrich, PhD in Computer Science from Purdue University, 1987; Chancellor's Professor of Computer Science at University of California, Irvine; co-author (with Tamassia) of three other Wiley textbooks and a new computer security text, Addison Wesley, 2011.

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Michael Goldwasser, PhD in Computer Science from Stanford University, 1997; Associate Professor and Director of CS at St. Louis University; author of Object-Oriented Programming in Python, Pearson, 2008.
FEATURES

• A primer that reviews the basics of programming in Python (Chapter 1), followed by a separate introduction to object-oriented programming in Python (Chapter 2).

• Extensive coverage of recursion (Chapter 4).

• A chapter describing the array-based underpinnings of Python’s standard list, string, and tuple classes (Chapter 5), including both theoretical and empirical analyses of their efficiencies.

• Source code with complete implementations of the majority of data structures and algorithms described in the book; the code follows modern standards for Python 3, and makes use of the standard collections module.

• 500 illustrations that present data structures and algorithms in a clear, visual manner.

• More than 750 exercises, divided into categories of reinforcement, creativity, and projects.

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