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Titolo	Computational Thinking : First Algorithms, Then Code // by Paolo Ferragina, Fabrizio Luccio
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Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (VIII, 174 p.)
Disciplina	005.1
Soggetti	Algorithms Software engineering Algorithm Analysis and Problem Complexity Software Engineering/Programming and Operating Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	A Brief Historical Outline -- A Problem with Which to Begin -- Algorithms and Coding -- The Tournament -- A Financial Problem -- Secret Messages -- Putting Things in Order -- "Easy" and "Difficult" Problems -- Search Engines -- Data Compression -- Recursion.
Sommario/riassunto	This book offers a gentle motivation and introduction to computational thinking, in particular to algorithms and how they can be coded to solve significant, topical problems from domains such as finance, cryptography, Web search, and data compression. The book is suitable for undergraduate students in computer science, engineering, and applied mathematics, university students in other fields, high-school students with an interest in STEM subjects, and professionals who want an insight into algorithmic solutions and the related mindset. While the authors assume only basic mathematical knowledge, they uphold the scientific rigor that is indispensable for transforming general ideas into executable algorithms. A supporting website contains examples and Python code for implementing the algorithms in the book.