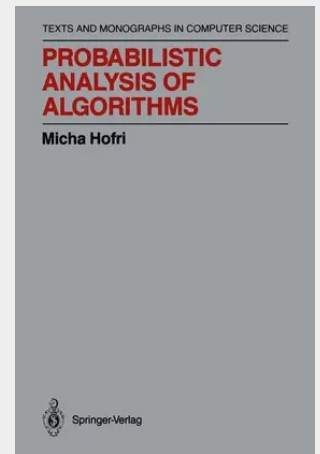


Probabilistic Analysis of Algorithms

On Computing Methodologies for Computer Algorithms Performance Evaluation

Probabilistic Analysis of Algorithms begins with a presentation of the "tools of the trade" currently used in probabilistic analyses, and continues with an applications section in which these tools are used in the analysis of selected algorithms. The tools section of the book provides the reader with an arsenal of analytic and numeric computing methods which are then applied to several groups of algorithms to analyze their running time or storage requirements characteristics. Topics covered in the applications section include sorting, communications network protocols and bin packing. While the discussion of the various algorithms is sufficient to motivate their structure, the emphasis throughout is on the probabilistic estimation of their operation under distributional assumptions on their input. *Probabilistic Analysis of Algorithms* assumes a working knowledge of engineering mathematics, drawing on real and complex analysis, combinatorics and probability theory. While the book is intended primarily as a text for the upper undergraduate and graduate student levels, it contains a wealth of material and should also prove an important reference for researchers. As such it is addressed to computer scientists, mathematicians, operations researchers, and electrical and industrial engineers who are interested in evaluating the probable operation of algorithms, rather than their worst-case behavior.

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53,49 €

49,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9781461291602

Medium: Buch

ISBN: 978-1-4612-9160-2

Verlag: Springer

Erscheinungstermin: 12.10.2011

Sprache(n): Englisch

Auflage: 1. Auflage 2011

Serie: Monographs in Computer Science

Produktform: Kartoniert

Gewicht: 400 g

Seiten: 240

Format (B x H): 155 x 235 mm

