Rod Stephens

DESCRIPTION

A friendly introduction to the most useful algorithms written in simple, intuitive English

The revised and updated second edition of *Essential Algorithms*, offers an accessible introduction to computer algorithms. The book contains a description of important classical algorithms and explains when each is appropriate. The author shows how to analyze algorithms in order to understand their behavior and teaches techniques that can be used to create new algorithms to meet future needs. The text includes useful algorithms such as: methods for manipulating common data structures, advanced data structures, network algorithms, and numerical algorithms. It also offers a variety of general problem-solving techniques.

In addition to describing algorithms and approaches, the author offers details on how to analyze the performance of algorithms. The book is filled with exercises that can be used to explore ways to modify the algorithms in order to apply them to new situations. This updated edition of *Essential Algorithms*:

- Contains explanations of algorithms in simple terms, rather than complicated math
- Steps through powerful algorithms that can be used to solve difficult programming problems
- Helps prepare for programming job interviews that typically include algorithmic questions
- Offers methods can be applied to any programming language
- Includes exercises and solutions useful to both professionals and students
• Provides code examples updated and written in Python and C#

*Essential Algorithms* has been updated and revised and offers professionals and students a hands-on guide to analyzing algorithms as well as the techniques and applications. The book also includes a collection of questions that may appear in a job interview. The book's website will include reference implementations in Python and C# (which can be easily applied to Java and C++).

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#### ABOUT THE AUTHOR

**Rod Stephens** began his career as a mathematician, but while at MIT he was lured into the intriguing world of algorithms and has been programming ever since. An award-winning instructor, he regularly addresses conferences and has written more than 30 books that have been translated into nearly a dozen languages.

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