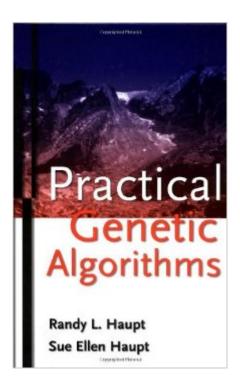
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Practical Genetic Algorithms





Synopsis

A tutorial on genetic algorithms with an emphasis on practical applications. The rapidly expanding field of genetic algorithms has given rise to many new applications in a variety of disciplines. However, most of the existing books on the subject concentrate on theory. Practical Genetic Algorithms is the first introductory-level book to emphasize practical applications through the use of example problems. In an accessible style, the authors explain why the genetic algorithm is superior in many real-world applications, cover continuous parameter genetic algorithms, and provide in-depth trade-off analysis of genetic algorithm parameter selection. Written for the end user in engineering, science, and computer programming, as well as upper-level undergraduate and graduate students, Practical Genetic Algorithms: * Provides numerous practical example problems * Contains over 80 illustrations * Features many figures and tables * Includes three appendices: a glossary of terms, a list of genetic algorithm routines in pseudocode, and a list of symbols used in the book.

Book Information

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Artificial Intelligence

Customer Reviews

This book is a good one for beginning GA programmers to start with. It provides sufficient detail for implementing both binary and continuous GAs, and compares their performance throughout the book. The applications described are diverse and interesting, although some of the engineering applications were hard for me to follow. In short, I found this book interesting and full of good ideas to experiment with.

Presents non-standard techniques without pointing out the standard ones. The non-standard techniques were recommended strongly based only on author's personal opinions, without comparison to other standard techniques on broad spectrum. For starters, it is much better to look into "An Introduction to Genetic Algorithms" by Melanie Michell.

This is a very simple introductory book to read on genetic algorithm. It provides a good overview of the main mechanisms involved. There is no theoretical treatment of the subject. The Pesudcodes provided in the appendixes have some mistakes. I recommend it for people who want quick general outline of what genetic algorithms means and how to apply it.

This is a really good 'hands on' introduction to genetic algorithms. Mitchell gives a great introduction as well, but this book gets into the 'practical' side of it.Haupt^2's book starts off with an introduction. The ideas behind optimization are covered briefly (~20pgs). The book then proceeds into the ideas behind binary genetics (also introducing the evolutionary ideas ~25 pgs). The book then goes into developing the code itself, while describing the trade offs. Very good examples under applications are given (both basic and advanced ~40pgs). More sophisticated techniques are developed, with a wrap up on current trends in GA.A great intro book (undergrad *even high school*), and a friend to the working scientist/engineer. This is a book that'll help get the job done.

I found this book to be an extremely clear and easy to understand introduction to genetic algorithms. It was particularly helpful to see examples of both binary and continuous versions of genetic algorithms, and to see explanations of examples on both elementary and advanced levels. This is a good book to read before buying one of the more comprehensive, rigorous technical books on the subject.

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