Encyclopedia of Algorithms

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Editor

Encyclopedia of Algorithms

Second Edition

With 379 Figures and 51 Tables

Springer Reference

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Preface

The Encyclopedia of Algorithms provides researchers, students, and practitioners of algorithmic research with a mechanism to efficiently and accurately find the names, definitions, and key results of important algorithmic problems. It also provides further readings on those problems.

This *encyclopedia* covers a broad range of algorithmic areas; each area is summarized by a collection of entries. The entries are written in a clear and concise structure so that they can be readily absorbed by the readers and easily updated by the authors. A typical encyclopedia entry is an in-depth mini-survey of an algorithmic problem written by an expert in the field. The entries for an algorithmic area are compiled by area editors to survey the representative results in that area and can form the core materials of a course in the area.

This 2nd edition of the encyclopedia contains a wide array of important new research results. Highlights include works in tile self-assembly (nanotechnology), bioinformatics, game theory, Internet algorithms, and social networks. Overall, more than 70 % of the entries in this edition and new entries are updated.

This reference work will continue to be updated on a regular basis via a live site to allow timely updates and fast search. Knowledge accumulation is an ongoing community project. Please take ownership of this body of work. If you have feedback regarding a particular entry, please feel free to communicate directly with the author or the area editor of that entry. If you are interested in authoring a future entry, please contact a suitable area editor. If you have suggestions on how to improve the Encyclopedia as a whole, please contact me at kao@northwestern.edu. The credit of this Encyclopedia goes to the area editors, the entry authors, the entry reviewers, and the project editors at Springer, including Melissa Fearon, Michael Hermann, and Sylvia Blago.

About the Editor

Ming-Yang Kao is a Professor of Computer Science in the Department of Electrical Engineering and Computer Science at Northwestern University. He has published extensively in the design, analysis, and applications of algorithms. His current interests include discrete optimization, bioinformatics, computational economics, computational finance, and nanotechnology. He serves as the Editor-in-Chief of Algorithmica.

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For more information, please see www.cs.northwestern.edu/~kao

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