

- Chapter 33, on machine learning, is the third new chapter. It introduces several basic methods used in machine learning: clustering to group similar items together, weighted-majority algorithms, and gradient descent to find the minimizer of a function.
- Section 34.5.6 summarizes strategies for polynomial-time reductions to show that problems are NP-hard.
- The proof of the approximation algorithm for the set-covering problem in Section 35.3 has been revised.

Website

You can use our website, <http://mitpress.mit.edu/algorithms/>, to obtain supplementary information and to communicate with us. The website links to a list of known errors, material from the third edition that is not included in the fourth edition, solutions to selected exercises and problems, Python implementations of many of the algorithms in this book, a list explaining the corny professor jokes (of course), as well as other content, which we may add to. The website also tells you how to report errors or make suggestions.

How we produced this book

Like the previous three editions, the fourth edition was produced in $\text{\LaTeX 2}_{\epsilon}$. We used the Times font with mathematics typeset using the MathTime Professional II fonts. As in all previous editions, we compiled the index using Windex, a C program that we wrote, and produced the bibliography using \BIBTeX . The PDF files for this book were created on a MacBook Pro running macOS 10.14.

Our plea to Apple in the preface of the third edition to update MacDraw Pro for macOS 10 went for naught, and so we continued to draw illustrations on pre-Intel Macs running MacDraw Pro under the Classic environment of older versions of macOS 10. Many of the mathematical expressions appearing in illustrations were laid in with the `psfrag` package for $\text{\LaTeX 2}_{\epsilon}$.

Acknowledgments for the fourth edition

We have been working with the MIT Press since we started writing the first edition in 1987, collaborating with several directors, editors, and production staff. Throughout our association with the MIT Press, their support has always been outstanding. Special thanks to our editors Marie Lee, who put up with us for far too long, and Elizabeth Swayze, who pushed us over the finish line. Thanks also to Director Amy Brand and to Alex Hoopes.