



PROFILES IN SCIENCE

The Yoda of Silicon Valley

Donald Knuth, master of algorithms, reflects on 50 years of his opus-in-progress, “The Art of Computer Programming.”

By Siobhan Roberts

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For half a century, the Stanford computer scientist Donald Knuth, who bears a slight resemblance to Yoda — albeit standing 6-foot-4 and wearing glasses — has reigned as the spirit-guide of the algorithmic realm.

He is the author of “The Art of Computer Programming,” a continuing four-volume opus that is his life’s work. The first volume debuted in 1968, and the collected volumes (sold as a boxed set for about \$250) were included by American Scientist in 2013 on its list of books that shaped the last century of science — alongside a special edition of “The Autobiography of Charles Darwin,” Tom Wolfe’s “The Right Stuff,” Rachel Carson’s “Silent Spring” and monographs by Albert Einstein, John von Neumann and Richard Feynman.

With more than one million copies in print, “The Art of Computer Programming” is the Bible of its field. “Like an actual bible, it is long and comprehensive; no other book is as comprehensive,” said Peter Norvig, a director of research at Google. After 652 pages, volume one closes with a blurb on the back cover from Bill Gates: “You should definitely send me a résumé if you can read the whole thing.”

The volume opens with an excerpt from “McCall’s Cookbook”:

Here is your book, the one your thousands of letters have asked us to publish. It has taken us years to do, checking and rechecking countless recipes to bring you only the best, only the interesting, only the perfect.