Donald E. Knuth was born on January 10, 1938 in Milwaukee, Wisconsin. He studied mathematics as an undergraduate at Case Institute of Technology, where he also wrote software at the Computing Center. The Case faculty took the unprecendented step of awarding him a Master's degree together with the B.S. he received in 1960. After graduate studies at California Institute of Technology, he received a Ph.D. in Mathematics in 1963 and then remained on the mathematics faculty. Throughout this period he continued to be involved with software development, serving as consultant to Burroughs Corporation from 1960–1968 and as editor of Programming Languages for ACM publications from 1964–1967.

He joined Stanford University as Professor of Computer Science in 1968, and was appointed to Stanford's first endowed chair in computer science nine years later. As a university professor he introduced a variety of new courses into the curriculum, notably Data Structures and Concrete Mathematics. In 1993 he became Professor Emeritus of The Art of Computer Programming. He has supervised the dissertations of 28 students.

Knuth began in 1962 to prepare textbooks about programming techniques, and this work evolved into a projected seven-volume series entitled *The Art of Computer Programming*. Volumes 1–3 appeared in 1968, 1969, and 1973; Volume 4A appeared in 2011, and he is now working full time on the remaining volumes. More than one million copies have already been printed, including translations into nine languages. He took ten years off from this project to work on digital typography, developing the TEX system for document preparation and the METAFONT system for alphabet design. Noteworthy byproducts of those activities were the WEB and CWEB languages for structured documentation, and the accompanying methodology of Literate Programming. TEX is now used to produce most of the world's scientific literature in physics and mathematics.

His research papers have been instrumental in establishing several subareas of computer science and software engineering: LR($k$) parsing; attribute grammars; the Knuth–Bendix algorithm for axiomatic reasoning; empirical studies of user programs and profiles; analysis of algorithms. A series of nine volumes containing archival forms of these papers was completed in 2011. In general, his works have been directed towards the search for a proper balance between theory and practice.

Professor Knuth received the ACM Turing Award in 1974 and became a Fellow of the British Computer Society in 1980, an Honorary Member of the IEEE in 1982. He is a member of the American Academy of Arts and Sciences, the National Academy of Sciences, the National Academy of Engineering, and the American Philosophical Society, and a foreign associate of l'Académie des Sciences (Paris), Det Norske Videnskaps-Akademi (Oslo), the Bayerische Akademie der Wissenschaften (Munich), the Royal Society (London), and the Russian Academy of Sciences (Moscow). He holds 5 patents and has published approximately 160 papers in addition to his 25 books. He received the Medal of Science from President Carter in 1979, the American Mathematical Society's Steele Prize for expository writing in 1986, the New York Academy of Sciences Award in 1987, the J. D. Warnier Prize for software methodology in 1989, the Adelsköld Medal from the Swedish Academy of Sciences in 1994, the Harvey Prize from the Technion in 1995, the Kyoto Prize for advanced technology in 1996, and the Frontiers of Knowledge award for communication and advanced technologies in 2010. He was a charter recipient of the IEEE Computer Pioneer Award in 1982, after having received the IEEE Computer Society's W. Wallace McDowell Award in 1980; he received the IEEE's John von Neumann Medal in 1995 and the IET's Michael Faraday Medal in 2011. He holds honorary doctorates from Oxford University, the University of Paris, the Royal Institute of Technology in Stockholm, the University of St. Petersburg, the University of Marne-la-Vallée, Masaryk University, St. Andrews University, Athens University of Economics and Business, the University of Macedonia in Thessaloniki, the University of Tübingen, the University of Oslo, the University of

Antwerp, the Swiss Federal Institute of Technology in Zürich, the Armenian Academy of Sciences, the University of Bordeaux, the University of Glasgow, and nineteen colleges and universities in America (including Brown, Dartmouth, Pennsylvania, and Harvard in the "Ivy League"). Minor planet "(21656) Knuth" was named in 2001.

Professor Knuth lives on the Stanford campus with his wife, Jill. They have two children, John and Jennifer. Music is his main avocation.