

Richard Shoup was born and raised in western Pennsylvania. He obtained his BSEE in 1965 and Ph.D. in Computer Science in 1970 at Carnegie Mellon University in Pittsburgh. His Ph.D. thesis, under advisor and computer industry pioneer Gordon Bell, was the first to explore programmable logic, later to be called Field Programmable Gate Arrays, a reconfigurable hardware technology now widely used in computers and consumer electronics.

While waiting for FPGAs to become practical, Dr. Shoup became one of the first employees at the pioneering Xerox Palo Alto Research Center, where he spent the 1970's researching computer graphics, animation, and digital video. At PARC, Shoup built one of the first digital frame buffers, and developed painting software for applications in graphic arts. The resulting "SuperPaint" system, a precursor to many desktop painting and animation systems, now resides in the permanent collection of the Computer History Museum in Mountain View, California.

For his pioneering computer graphics work, Shoup was awarded an Emmy by the National Academy of Television Arts and Sciences, an Academy Award by the Academy of Motion Picture Arts and Sciences, and the Computer Graphics Achievement Award by ACM Siggraph.

Shoup left Xerox in 1979 to co-found Aurora Systems, a manufacturer of digital videographics and animation systems. He served for four years as President and Chairman of Aurora, and continued as principal designer of the company's videographics systems through 1989.

In early 1993, Dr. Shoup joined Interval Research Corporation in Palo Alto, an independent research laboratory conceived in 1992 by Paul Allen, cofounder of Microsoft. At Interval, he worked in the areas of reconfigurable computing, hardware and software architectures, design tools, and mathematics of computation.

Continuing a project conceived at Interval, in early 2000 Shoup and a colleague founded the Boundary Institute, a small non-profit research lab for the study of the foundations of physics, mathematics and computer science.

In addition to his research work, Shoup has recently been active in the design and implementation of advanced programming tools for multicore architectures at Quicksilver Technologies and Rapport Incorporated.

Richard Shoup resides in San Jose, California with his wife and son. His other interests include tennis and music, and he frequently can be found playing trombone with jazz big bands in the San Francisco Bay Area.
