

K. Stuart Smith

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Mr. Smith earned a BA (Chemistry, Computer Science) from the State University of New York (Potsdam) in 1976 and his MS (Computer Science) from the University of Colorado (Boulder) in 1979 where he studied parallel computer architecture and operating systems under Gary J. Nutt and the late Harry F. Jordan.

Prior to joining the faculty of Rocky Mountain College in 2002, Mr. Smith was employed in both technical and management roles in a wide variety of research and development organizations, most recently as Director of Engineering for a private company in Omaha, Nebraska that was engaged in software technology training and the development of guaranty system software for the student loan industry.

After completing graduate studies, Mr. Smith was employed by the Burroughs Corporation in Paoli, Pennsylvania, where he worked on several large parallel processor projects including the Burroughs Scientific Processor (*BSP*) and later as an architect for Burroughs' proposed *Flow Model Processor*. Subsequently, Mr. Smith managed a software and system development effort as part of the first large-scale deployment of optical character readers/sorters for the US Postal Service. Mr. Smith joined American Supercomputers, founded by Stanford University computer architect Michael Flynn, where Smith resumed earlier work in parallel processing architecture and simulation.

Joining the Microelectronics and Computer Technology Corporation, a pre-competitive research consortium in Austin, Texas, in 1985, Mr. Smith participated in DARPA-sponsored research focused on rapid prototyping and implementation of parallel computers. These projects eventually resulted in the implementation of the Experimental Systems "Kit" (*ES-Kit*) [2-6], a collection of both hardware and software components used to construct more or less arbitrary heterogeneous and distributed multiprocessor configurations. These efforts included one of the earliest uses of object-oriented technology in the development of operating systems and explored message passing in distributed systems of objects.

Subsequently, Mr. Smith joined Scientific and Engineering Software (now Hyperformix) where he was one of the principal developers of *SES/Objectbench* [1], a commercial object-oriented analysis and simulation environment based on the Shlaer/Mellor methodology.

Mr. Smith spent five years (1995-2000) as manager and principal developer of an internal research and development project for Microchip Technology, Inc., in Chandler, Arizona. That work resulted in the development of engineering-focused software that integrated simulation for design and test engineering functions, substantially reducing the development cycle time of the company's products.

Since joining the Rocky Mountain College faculty, Mr. Smith has played a key role in the redefinition of the computer science program where he most passionately lectures on object-oriented systems and software design. Smith is a strong advocate for the incorporation of computer science and programming in early secondary education and has promoted local programs to introduce high school students to college-level computer science curricula. His current research interests are in the areas of computer architecture, operating systems and object-oriented systems, and particularly where these intersect: the distribution and migration of objects in loosely coupled multiprocessor systems.

Mr. Smith served on the IEEE 1450 standard committee (STIL) and served on the program committee for the Supercomputing 1991 and Supercomputing 1992 conferences. He is a member of the ACM and the IEEE Computer Society, and a member of the AAAS.

Bibliography

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