Charles H. Sauer, Ph.D.

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CAPABILITIES AND ACCOMPLISHMENTS

Technologist with broad experience and vision in computing, communications, networking, multimedia, personal systems, Windows, UNIX, Linux, software, and systems modeling. Development manager of advanced products and technologies. Leader and organizer of cross-functional and multi-company teams, technical groups, and standards bodies. Authored 4 books, 6 book chapters, 17 journal articles and numerous additional publications. Named inventor on two U.S. patents and one European patent. Expert in successful patent litigation, providing research, software analysis, 11 declarations and reports, and testimony (1 fact deposition, 2 expert depositions, one *Markman* tutorial, one *Markman* hearing) in 15 matters.

EMPLOYMENT HISTORY

***Technologists*, Austin, Texas, ongoing**

Founder and Chief of Research.

Lightling, Inc., Austin, Texas, 2001-2002

Chief Software Architect. Designed and developed Java software for integrating wireless "smart phones" with e-mail, intranet, and other enterprise applications.

***Cymbia.com*, Austin, Texas, 1999-2002**

Co-founder and Chief Technical Officer. Chief architect and developer of Cymbia ***Telecom Analyzer***, a tool for analyzing and managing corporate telecommunications expenses and networks.

***Signet Network Systems*, Austin, Texas, 1999-2005**

Consultant.

***hire.com* (formerly World.hire), Austin, Texas, 1996-1999**

Chief Technical Officer, Senior Vice President Product Group. Established all aspects of ***Recruiter***, a web-based enterprise application for hiring and retention, including overall definition matching customer requirements, user interface, and internal architecture.

***VTEL Corporation*, Austin, Texas, 1993-1996**

1995-1996 Chief Technical Officer, Vice President Product Planning and Advanced Development. Established "VTEL Labs" as a separate functional organization. Developed, and achieved executive staff endorsement of, technology roadmap and "VTEL 2000" vision.

1993-94 Vice President, Software and Architecture. Delivered leadership Windows-based products for videoconferencing, with extensible user interface appropriate to a broad range of environments. Provided overall system architecture and product planning direction for products for both group and desktop environments. Led technical relationships in joint activities with Intel.

***Dell Computer Corporation*, Austin, Texas, 1989-1993**

1991-1993 Vice President, Software and Technology. Development responsibility for operating systems products including Windows/DOS, Windows/NT, NetWare, OS/2 and Unix.

1990-1991 Vice President, Advanced Systems Development. Development responsibility for all 486 EISA system products, including advanced storage subsystems, ASIC and technology development.

1989-90 Director, Systems Development. Led development of premiere PC implementation of UNIX SVR4. Developed RAID disk subsystems for EISA products. Developed ASIC's for Dell systems.

***IBM Corporation*, Austin, Texas, 1982-1989.**

1986-1989 Senior Technical Staff Member, Advanced Engineering Systems. Lead architect for AIX on RS/6000 and "AIX Family" (RT/PC, PS/2, System/370). Initiated joint development efforts with Apollo Computer, CMU and OSF leading to winning design submission to OSF for Distributed Computing Environment.

1984-1986 Manager of System Architecture, Engineering Systems Products.

1982-1983 Senior Programmer, Communications Products Division.

***The University of Texas at Austin*.**

1977-1979 Assistant Professor of Computer Sciences. Research and teaching in performance modeling methodology, operating systems and programming languages.

***IBM Corporation, Watson Research Center*, Yorktown Heights, New York**

1975-1977, 1979-1982 Research Staff Member/Manager. Research in performance modeling methodology and software.

PROFESSIONAL AWARDS

IBM Corporate Award, *AIX Architecture*, 1988. (with G.G. Henry and L.K. Loucks.)
IBM Outstanding Innovation Award, *IBM RT PC Virtual Resource Manager*, 1985.
IBM Research supplemental Outstanding Innovation Award, ***RESQ***,1981.
IBM Research Outstanding Innovation Award, ***RESQ***, 1978.

BOARDS, COMMITTEES, PROFESSIONAL ACTIVITES

Trustee, P.E.T. International, 2009-
Director, Secretary & Vice-Chairman Rainbow Network, 2008-
Vice President, International Multimedia Teleconferencing Consortium, 1996
Steering Committee, Personal Conferencing Work Group, 1994-95
Adjunct Professor of Computer Sciences, University of Texas at Austin, 1992-93
Technical Advisory Board, VTEL Corporation, 1992-1993
Director, Business Applications Performance Corporation, 1991-1993
Editorial Board, *Unix Technology Advisor*, 1988-91.
Program Committee, Winter 1988 USENIX.
Guest Editor, IEEE Journal on Selected Areas in Communications, January 1988 issue.
Program Committee, ACM SIGMETRICS 1985.
Program Committee, 5th International Conference on Distributed Computing Systems.
Director, ACM SIGMETRICS, 1981-85.

BOOKS

Duran and Sauer, *Mainstream Videoconferencing: A Developer's Guide to Distance Multimedia*, Addison-Wesley (1997). See http://technologists.com/jwdchs/.
MacNair and Sauer, *Elements of Practical Performance Modeling,* Prentice-Hall (1985).
Sauer and MacNair, *Simulation of Computer Communication Systems*, Prentice-Hall (1983).
Sauer and Chandy, *Computer Systems Performance Modeling*, Prentice-Hall (1981).

PATENTS

"System and method for accessing remote files in a distributed networking environment" (Johnson, Neuman, Sauer, Shaheen-Gouda, Smith) #4,887,204
"Single system image uniquely defining an environment for each user in a data processing system" (Johnson, Loucks, Sauer, Smith) #5,001,628
"Single system image" (Johnson, Loucks, Sauer, Smith) EP0278314

EDUCATION

Ph.D. 1975, computer sciences, University of Texas at Austin.
B.A. 1970, mathematics, University of Texas at Austin.