CURRICULUM VITAE

Richard H. Eckhouse, Ph.D.
Professor

August 1998

EDUCATION

Ph.D.   Computer Science   SUNY/Buffalo   1971
M.S.   Electrical Engineering   University of Illinois 1963
B.S.E.E.   Electrical Engineering   Cornell University   1962

RESEARCH AND TECHNICAL INTERESTS

Fundamentals of computing systems, machine and assembly language programming, real-time systems, operating systems, computer architecture, microprogramming, virtual computer systems, multiprocessing, metalanguages applied to computer system semantics, biomedical devices, and the use of computers in human performance/rehabilitation studies.

EXPERIENCE

1988-present
    University of Massachusetts, Boston, MA
    Professor
    Department of Mathematics and Computer Science

        Responsible for upper-level and graduate courses in computer   architecture, data structures & algorithms, operating systems, computer design, and real-time systems. Offered special seminars in real-time systems, advanced computer architecture, and high-level specifications languages. Helped revise and implement the plan for the Ph.D. program.

1980-present
    MOCO, inc., Scituate, MA
    Engineering Vice President

        Responsible for all bioengineering projects; designed and developed special medical systems based on mini- and microcomputers; designed all analog and digital systems used in company research involving real-time systems to measure eye movements, rehabilitation strategies, evaluate eye-head-hand control, treat learning disorders, perform functional electrical stimulation, evaluate visual-vestibular disorders, and measure bladder dysfunction; principal investigator and coprincipal investigator on

1978-79

Temple University, Philadelphia, PA
Associate Professor, Computer Science Department

Responsible for systems engineering courses including machine and assembly language programming, real-time systems, databases, and networking; supervised masters theses; helped plan for Ph.D. program.

1974-83

Digital Equipment Corp., Maynard, MA
Sr. Manager, 32-Bit Systems Advanced Development; Manager
Sr. Manager, Corporate Research Group
Manager, Corporate Library
Manager, External Research Program
Manager, Computer Systems Architecture Research Group
Consulting Engineer

Responsible for several large advanced development and research groups of over 60 people working in all phases of computer science including high performance architectures, languages, multiprocessors, high-resolution displays, VLSI compilers, security, robotics and factory automation, operating systems, numerical analysis, and networking; initiated and developed a $5M liaison program to fund over 200 colleges and universities in USA and Europe; managed corporate library staff; Managed architecture group looking into distributed processing, contention networks, performance evaluation of real-time systems, highly available systems, virtual computers and hypervisors, and data management systems; designed and implemented multiprocessor, real-time, performance monitoring, and networking systems.

1971-74

University of Massachusetts, Amherst, MA
Associate Professor and Vice-Chairman, Computer and Information Science Department

Responsible for systems engineering courses including machine and assembly language programming, process modeling, operating systems, and microprogramming; taught introductory programming course; developed computer laboratory for both teaching and research; chaired and supervised several Ph.D. theses; member of qualifying examination committee; research conducted in the areas of microprogramming in support of virtual machine systems, macros for the support of database functions, and

1967-71
State University of New York, Buffalo, NY
Instructor, Computer Science Department and Assistant Director, Computer Center

Taught large (over 300) introductory programming course; taught machine and assembly language programming; responsible for entire computer center systems staff with CDC and S/360 equipment base; proposed and supervised remote job entry system for associated colleges and universities; principal investigator of CDC grant given to develop and maintain advanced software systems.

1964-67
Bucknell University, Lewisburg, PA
Instructor, Electrical Engineering and Computer Science
Departments and Director, Computer Center

Responsible for circuit theory, rotating machinery, numerical methods, and other traditional electrical engineering courses; taught principles of electrical engineering to mechanical engineers; responsible for first developing and then teaching entire computer science curriculum including compilers and computer languages; managed budget and staff of small computer center and helped it develop into mid-sized system; trained other faculty and staff in the use of computers for their research and day-to-day administrative activities.

ADJUNCT AND AFFILIATE POSITIONS

1990-92
University of Massachusetts, Amherst, MA
Adjunct Associate Professor, Computer and Information Science Department

Cooperative appointment allowing UMB students to complete their Ph.D. dissertation work at UMA under my direction.

1985-88
Dartmouth College, Hanover, NH
Adjunct Professor, Thayer School of Engineering

Brought in to develop an upper-level/graduate course in computer architecture; helped

1975-1978
University of New Hampshire, Durham, NH
Special faculty member

Provided thesis supervision for special Sea-Grant student undertaking research into the performance of multiprocessor systems. As the only faculty member who understood the student's thesis area, direct supervision was required.

1977-1978
University of Massachusetts - Amherst
Adjunct Associate Professor, Computer & Information Science Department

Provided thesis supervision for my Ph.D. student.

CONSULTING EXPERIENCE

Consulted for the following institutions: Brain Research Laboratory (Fox Chase Cancer Center), Braintree Hospital, Canisius College, Catholic Medical Center, Computer Museum, Good Samaritan Hospital, IEEE Computer Society, Krusen Research Center for Bioengineering (Moss Rehabilitation Hospital), Neuro Kinetics, Inc., Togus VA Hospital, Barrows Neurological Institute (St. Josephs Hospital), Tufts New England Medical Center, and US Army Research Laboratory - Ft. Monmouth.

Presented invited lectures or conducted intensive courses for the following firms: BGS, Digital Equipment Corporation, and Integrated Computer Systems.

Member of the outside review committee, Department of Computer Science, University of Southwestern Louisiana.

Served as an expert witness in a suit involving several companies working on multimedia, networking, and video streaming.

JOURNAL PUBLICATIONS

Eckhouse, R.H. "An Investigation into the Use of a Higher-Level, Machine Independent Language for Writing Microprograms." **Proceedings of the 3rd Microprogramming**

Eckhouse, R.H. "The Computer Science Laboratory". **Proceedings of the 2nd Symposium on Education in Computer Science**, St. Louis, March 1972, 42-45.

Rosin, R.F., Frieder, G. and Eckhouse, R.H. "An Environment for Research in Microprogramming and Emulation." **Communications of the ACM**, 15(8), 748-761, 1972.

Lee, J.A.N. and Eckhouse, R.H. "The Application of VDL Definition Techniques to the Design, Checking and Validation of Computer Hardware and Software." **SIGPLAN/SIGOPS Interface Meeting**, Savannah, GA, April 1973.

Eckhouse, R.H., Cutler, D., and Pellegrini, M. "The nucleus of a real-time operating system." **ACM National Conference**, (1976).

Eckhouse, R,H, and Nelson, D.L. "Closely coupled Multiprocessor systems." Invited paper, **Proceedings of the 14th Annual Southeast Regional ACM Conference**, 151-164, 1976.

Eckhouse, R.H. "Minicomputers" and "Computer accounting and resource control." In: **Encyclopedia of Computer Science**. Ralston (ed.). 1976.

Eckhouse, R.H. and Nelson, D. "Distributed operating systems – an approach to greater flexibility." **Fifth Texas Conference on Computing Systems** (1976).

Brown, G., Eckhouse, R.H., and Goldberg, R. "Operating system enhancement through microprogramming." **Fall COMPCON 1976**; also appears in **Microprogramming** (Sondak & Mallach, eds.), 1976.

Brown, G., Eckhouse, R.H., and Estabrook, J. "Operating system enhancements through firmware." **International Conference on Computer Performance: Modeling, Measurement, and Management** (1977).

Eckhouse, R.H. and Shriver, B. "Selected papers in mini and micro computer systems." **Proceedings of the Eleventh Hawaii International Conference on System Sciences** (1978).

Eckhouse, R.H., Stankovic, J., and van Dam, A. "Issues in distributed processing -- an overview of two workshops." **Computer** (1978); also appears **in A Pragmatic View of Distributed Processing** by Thurber, K.J.

Eckhouse, R.H. "Minicomputers" and "Computer accounting and resource control." In:

Maulucci, R.A., Eckhouse, R.H., and Herman, R.M. "A microcomputer workstation for enhancing functional recovery." **Proceedings of the Ninth Annual Conference on Rehabilitation Technology** (1986), 9-11.

Maulucci, R.A., Eckhouse, R.H., and Herman, R.M. "Computer-assisted recovery of perceptuo-motor function**." Proceedings of the 39th Annual Conference on Engineering in Medicine and Biology** (1986), 228.

Maulucci, R.A., Eckhouse, R.H., and Herman, R.M. "A microcomputer workstation for assessing function." **Psychopharmacology Bulletin** 23 (1987), 294-297.

Davis, R., Eckhouse, R.H., Patrick, J.F., and Delehanty, A. "Computer-controlled 22-channel stimulator for limb movement." **Acta Neurochirurgica**, Suppl. 39 (1987).

Davis, R., Eckhouse, R.H., Patrick, J.F., and Delehanty, A. "Computerized 22-channel stimulator for limb movement." **Applied Neurophysiology** 50 (1987), 444-448.

Maulucci, R.A. and Eckhouse, R.H. "The use of computers in the assessment and treatment of cognitive disabilities in the elderly -- a survey." **Psychopharmacology Bulletin** 24 (1988), 557-564.

Eckhouse, R.H. and Maulucci, R.A. "A microcosm of computer history." **Annals of the History of Computing** 10 (1989), 445- 469.

Eckhouse, R.H. and Maulucci, R.A. "Assessment of eye-head-hand coordination." In: **Quantifying Performances in Neurology**. Davis, R., Kondraske, G. J., Tourtellotte, W. W., and Syndulko, K. (eds.). Mount Kisco, New York: Futura Publishing Co., 1989.

Maulucci, R.A. and Eckhouse, R.H. "A workstation for quantifying perceptuo-motor behavior." In: **Quantifying Performances in Neurology**. Davis, R., Kondraske, G. J., Tourtellotte, W. W., and Syndulko, K. (eds.). Mount Kisco, New York: Futura Publishing Co., 1989.

Eckhouse, R.H., Maulucci, R.A., and Leonard, E. "A computerized kinematic diagnostic system." **Journal of Medical Systems**, 5 (1989), 261-274.

Eckhouse, R.H. "Convert PC's parallel port into bi-directional instrumentation interface." **Personal Engineering and Instrumentation News**, 7(6) 1990, 51-56.

Davis, R., Kuzma, J.,, Patrick, J.,, Heller, J., McKendry, J., Eckhouse, R., and Emmons, S., "Nucleus FES-22 stimulator for motor function in a paraplegic subject." **Proceedings of RESNA International '92**, June 6-11, 1992, 228-229.

Eckhouse, R.H., Leonard, E.L., Zhuang, Q. and Maulucci, R.A. "Improving reaching in preschool children with cerebral palsy through regulated feedback**." Transactions on Rehabilitation Engineering**, 2(3) 1994, 147-157.

Maulucci, R.A., Eckhouse, R.H., and Zhuang, Q. "Kinematics and models of guided limb motion." **Life Science s and Space Medicine Conference '95**, Washington, DC, American Institute of Aeronautics and Astronautics, 1995, 188-189.

Eckhouse, R. H., Penny, M. A., and Maulucci, R. A. "A comparison of kinematic recording instruments." **Journal of Medical Systems** 20(6) (1996), 439-456.

Eckhouse, R. H. and Maulucci, R. A. "A multimedia system for augmented sensory assessment and treatment of motor disabilities." **Telematics and Informatics** 14(1) (1997), 67-82.

Maulucci, R. A. and Eckhouse, R. H. "A technique for measuring clothed range of joint motion." **Journal of Applied Biomechanics**, 13(3) (1997), 316-333.

BOOKS

Eckhouse, R.H. **Minicomputer Systems: Organization and Programming**. Prentice-Hall, 1975. Also published in Japan and Taiwan.

Eckhouse, R.H. and Shriver, B. (eds.). **Microcomputer and Minicomputer Systems**. Vol. III of HICSS-11, Western Periodicals Company, 1978.

Eckhouse, R.H. and Morris, R**. Minicomputer Systems: Organization, Programming, and Applications (2nd ed.)**. Prentice-Hall, 1979. Also published in Japan, Spain, and Hungry, and India.

Levy, H. and Eckhouse, R.H. **Computer Programming and Architecture: The VAX-11**. Digital Press, 1980. Also published in Japan.

TECHNICAL REPORTS

"A FORTRAN Program for Determining the Earth's Magnetic Field", EERL Report, University of Illinois, February 1964.

"Computer-Assisted Admissions" (with R.A. Scott), Bucknell University, 1967 (also presented to COMMON)

"A High-Level Microprogramming Language (MPL)", Dept. Report 1-71-mu, SUNY/Buffalo, June 1971.

"An Environment for Research in Microprogramming and Emulation" (with R. Rosin and G. Frieder), Dept. Report 5-71-mu, SUNY/Buffalo, September 1971.

"Automated Accounting Systems", COINS TN/CS/32, University of Massachusetts, April 1972.

"System Design: Process Models", COINS TN/CS/31, University of Massachusetts, April 1972.

"Operating System Enhancement Through Microprogramming" (with G.E. Brown and R.P. Goldberg), US Army Electronics Command, Centacs Report #52, November 1976.

"Operating System Enhancement Through Microprogramming: Design and Implementation" (with G.E. Brown and J.A. Estabrook), US Army Electronics Command, Centacs Report #53A, November 1976.

"Operating System Enhancement Through Microprogramming: Performance Evaluation and Modeling" (with G.E. Brown, J.A. Estabrook and R.P. Goldberg), US Army Electronics Command, Centacs Report #53B, November 1976.

"OPTIMOD", a database and modeling system, NASA LBJ Space Center, Houston, TX., July 1, 1993.

Paquette, S., Maulucci, R., Eckhouse, R., Zhuang, Q., and Murphy, H., "The Effects of Multilayered Military Ensembles on Range of Joint Motion", US Army Natick RD&E Center, May 3, 1993, 138 pages plus 654 pages of appendices.

Co-investigator (with JAN Lee), "The Application of VDL Definition Techniques to the Design, Checking and Validation of Computer Hardware and Software." National Science Foundation, 1974-1976.

Co-investigator (with R. Maulucci). "Microcomputer Based Rehabilitation." Department of Health and Human Services; Alcohol, Drug Abuse, and Mental Health Administration; National Institute of Mental Health. Phase I: September 28, 1983 - March 31, 1984; $59,300. Phase II: September 30, 1984 - August 31, 1985; $406,256.

Co-investigator (with R. Maulucci). "Clinical Urodynamic Diagnosis Through Portable Monitoring." Department of Health and Human Services; National Institutes of Health; National Institute of Diabetes and Digestive and Kidney Diseases. September 22, 1986 - February 21, 1987; $50,000.

Principal Investigator. "Improved Urethral Profilometry Measurement." Department of Health and Human Services; National Institutes of Health; National Institute of Diabetes and Digestive and Kidney Diseases. September 30, 1987 - February 29, 1988; $49,480.

Co-investigator (with R. Maulucci). "Kinematic Analysis of Pediatric Movement Disorders." Department of Health and Human Services; National Institute of Child Health and Human Development. September 26, 1988 - March 25, 1989; $50,000.

Co-investigator (with R. Maulucci). "Microcomputer Generated Statistical Tables." National Institutes of Health; Department of Health and Human Services; National Cancer Institute. Phase I: May 1, 1989 - October 31, 1989; $49,000. Phase II: September 29, 1990 - September 28, 1992; $321,258.

Co-investigator (with R. Maulucci). "Optimal Workspace Design." National Aeronautics and Space Administration. Phase I: January 18, 1990 - July 17, 1990; Phase II: April 1, 1991 - March 31, 1993; $496,733.

Co-investigator (with R. Maulucci). "Use of Regulated Feedback To Improve Reaching in Multiply Handicapped Children." Department of Education. Phase I: September 16, 1991 - March 14, 1992; $29,552.

Co-investigator (with R. Maulucci). "The Effects of Clothing on Body Size and Range of Joint Motion." US Army Natick RD&E Center. Phase I: September 18, 1991 - May 18, 1992; $81,603.

Co-investigator (with R. Maulucci). "Nonstandard Functional Limb Trajectories." National Aeronautics and Space Administration. Phase II: May 10, 1993 - May 9, 1995; $479,560.

Co-investigator (with R. Maulucci). "Trajectory Modification in Chronic Stroke Patients." Department of Health and Human Services. Phase I: September 1, 1993 - February 28, 1994; $49,880. Phase II: September 15, 1995 - August 31, 1998; $717,740.

Co-investigator (with R. Maulucci). "Biomechanics of Military Tasks Through Ambulatory Monitoring." Department of Defense. Phase I: February 25, 1994 - September 24, 1994; $69,868.78.

Co-investigator (with R. Maulucci). "The Biomechanics of Toddlers." Kimberly-Clark Corporation. April 11, 1994 - August 8, 1994; covered by Confidential Disclosure Agreement.

Ph.D. DISSERTATION COMMITTEES CHAIRED

"A Data Encoding and Decoding Scheme for Facilitating the Transmission of Computer Graphics Data in a Computer Network", A.I. Karshmer, University of Massachusetts - Amherst, August, 1978.

ADDITIONAL Ph.D. COMMITTEE MEMBERSHIP

"Queuing Models for Distributed Computer Systems", Y.C. Chow, University of Massachusetts - Amherst, June 1977.

"A Systems Analysis of a Real-time Multiprocessor Computer System", W.H. Lenharth, University of New Hampshire, December 1977.

MASTERS AND HONORS THESES

"The Quicksilver Project: A software Engineering Endeavor", Victor Abaya, May 1998.
"Digital Signal Processor", Joshua Koplik, May 1998.

EDITORIAL POSITIONS AND CONTRIBUTIONS

Member. Editorial Board, **Computer** and **IEEE Software**. Institute of Electrical and Electronics Engineers, responsible for setting policy and reviewing selected articles. January 1984 - 1992.

Member. Computing Practices Advisory Panel, **Communications of the ACM**. Association for Computing Machinery, provide reviews of technical articles geared toward the practitioner. 1984 - 1996.

Member. Editorial Board, **Journal of Medical Systems**, responsible for setting policy and reviewing selected articles. January 1988 - present.

Member, Graduate Review Examination - Computer Science, Educational Testing Service. Design and evaluation GRE examinations. January 1992 – June 1998.

Computer Articles
"Full functionality, low-cost CAD/CAE systems", 20(8), 126-129, 1987.
"Full-function, low-cost, entry-level accounting systems" and Product Notes, 20(10), 79-82, 1987.
"Powerful word processing" and Excellent, low-priced CAD", Product Notes, 20(12), 92-93, 1987.
Product Notes, 21(1), 112, 1988.
"Easy-to-use screen interface systems" and Product Notes, 21(2), 88-90, 1988.
"Alternative input devices" and "Entry-level networking system", 21(3), 128-132, 1988.
"On buying a new 386-based PC" and Product Notes, 21(4), 108-114, 1988.
"Microsoft's high-performance languages" and Product Notes, 21(5), 82-87, 1988.
"Mathematical-oriented programming", 21(6), 89-95, 1988.
Product Notes, 21(7), 83, 1988.
"Operating environments for the 80386", "A fantastic, full-featured network", and Product Notes, 21(8), 82-91, 1988.
Product Notes, 21(9), 97, 1988.
"The PC as a graphics engine", 21(10), 66-72, 1988.
"Dac's updated accounting software", "Global Specialties' Proto-Board for the IBM PC", "Super VGA controllers", "How fast is fast?" and Product Notes, 21(12), 82-92, 1998.
Product Notes, 22(1), 116, 1989.
Product Notes, 22(2), 93, 1989.
"Data control, acquisition, analysis, and display" and Review Notes, 22(3), 81-89, 1989.
"Printing the word" and Review Notes, 22(4), 83-88, 1989.

"The network eye and LANtastic NOS", "Adding memory painlessly", "The automated programmer", "A practical and intelligent choice in modems", "Managing your memory", and "How to become a disk manufacturer", 22(12), 81-90, 1989.

Review Notes, 23(2), 111, 1990.

Review Notes, 23(3), 94-96, 1990.

"Displaying at its best" and "Intelligent character recognition", 23(6), 97-103, 1990.

"The infinite font cartridge", 23(7), 104, 1990.

Review Notes, 23(8), 107-109, 1990.

"Looking through Windows products", "A CAD program using the Windows Environment" and "A Genius of a 486", 23(9), 102-103, 107-110 1990.

"How to label nearly everything", "A computer that makes and reads questionnaires", "Artisoft's Fantastic Lantastic", "Inside Windows 3.0", "State of the art in forms packages", and "Top-of-the-line scanner", 23(12), 85-92, 1990.

"Top-of-the-line display equipment", 24(2), 84-85, 1991.

Review Notes, 24(2), 89-90, 1991.

Review Notes, 24(3), 93-94, 1991.

"The low-price leader", 24(5), 91-92, 1991.

"Object-oriented graphics", 24(6), 88-91, 1991.

"DOS, Windows, and Hardware", 24(9), 131-137, 1991.

"1684 PC Pak", 24(10), 85-86, 1991.

"Floppy Drive Testing System", 24(11), 90, 1991.

"Desktop Lawyer", "FileApps", "MoreFonts", "Norton Desktop for Windows", Winfax Pro" and "Zoom Telephonics", 24(12), 88-91, 1991.

"Microsoft Mouse" and "CompuWisk", 25(2), 91, 1992.

"Word Processors - For Better or For Worse" and "Highly Innovative Products" plus Product Notes, 25(3), 86-92, 1992.

"More About Fantastic LANtastic", 25(4), Review Notes, 81-83 & 84-85, 1992.

"MicroTrac", "One-Write Plus", and "Tracer", 25(5), 81-83, 1992.

"What Light Through Yonder Windows 3.1?", 25(8), 81-85, 1992.

"Learning to Compute Faster", 25(9), 97-98, 1992.

"Image-Processing Software", 25(11), 102-103, 1992.

"Is There Life After Desktop" and "Removing Viruses", 25(12), 89-91, 1992.

"Programs that do Windows", "The Ultimate Connection", and "SizeIt", 26(3), 81-82 and 84-85, 1993.

"WinFax Pro", 26(5), 87, 1993.

"Microsoft Windows NT", 26(12), 86-88, 1993.

"More Books on NT", 27(1), 90, 1994.

"Accounting At Its Best", 27(6), 81-82, 1994.

"DESQview: surprisingly good multiprogramming and windowing", 3(1), 86, 1986.
"TYP-SET: creates quality documents", 3(2), 78, 1986.
"smARTWORK: great low-priced PCB CAD" and Low-Cost schematic design tools have
real muscle, 3(3), 79-80, 1986
"DAC does it again", 82, 3(4), 1986.
"Presentation graphics made easy", 3(6), 74-, 1986.
"Sophisticated scratchpad mathematics", "A good thing made even better", and "More
than a block-diagramming system", 4(1), 70-73, 1987.
"Upgrading to EGA graphics" and "Powerful CAD at an attractively low price", 4(2), 80-
81, 1987.
"The ultimate three-dimensional CAD system", "More EGA options", "Version control
made easy and compact", "Reviews on disk", 4(3), 81-83, 1987.
"Top of the list", 4(4), 93, 1987.
"Bargain relational database", 4(5), 96, 1987.
"Dynamic duo tacklers version management, 4(6), 100, 1987.
"Right software for the wrong reasons", 5(2), 104, 1988.
"PL/D acts like a compiler, looks like an assembler", 5(4), 107, 1988.
"Maintaining healthy disks", 5(6), 99-100, 1988.
"Keeping disks healthy gets easier", 6(3), 106, 1989.
"Graceful application manager", 7(5), 106, 1990.

Computer Era Calendar, published in cooperation with the Computer Museum, 1983, 1984,
and 1985.

CONFERENCE RELATED ACTIVITY

Session Organizer and Co-Chairman, ACM National Computer Conference (1972)
Organizing Committee Member, NSF Sponsored Workshops on Distributed Processing
(1977-78)

Track Co-Chairman, HICSS-11 (1978)

ACM/IEEE Microprogramming Workshops:
    Micro-3 (1970), Local Arrangements
    Micro-14 (1981), General Conference Chairman

Program Committee Member, COMPCON EAST (1978)

INVITED COLLOQUIUMS

Dartmouth College
Naval Research Laboratory
Northwestern University
State University of New York at Buffalo
Stevens Institute of Technology
Temple University
University of Colorado
University of Massachusetts - Amherst
University of Mexico
University of Rhode Island
University of Southwestern Louisiana
University of Waterloo
Virginia Polytechnic Institute and State University

ADDITIONAL PROFESSIONAL ACTIVITIES

IEEE Computer Society:
    Elected to the Board of Governors, Computer Society of the IEEE, 1993, reelected 1996.
    Elected to Secretary 1995 & 1996. Member of the Executive Committee, 1995-1996.

Industry and Government Related:
    Secretary and Board Member, VIM (CDC 6000 Users Society)
    Reviewer for National Institute of Diabetes and Digestive and Kidney Diseases
    Reviewer for National Science Foundation

Wang Institute
    Academic Advisory Board

University Related:
    Department Committees:
        ACM Student Chapter, Advisor
        Admissions
        Colloquium, Chairman
        Computing Laboratory, Director
        Curriculum

University Committees:
   Academic Program Review
   College Personnel
   Core Curriculum
   Dean's Advisory
   Geography Promotion
   Graduate Review
   President's Technology Working Group

Miscellaneous:
   Radio Station Advisor
   Telephone Soliciting for Capital Campaign

Reviewing:
   Communications of the ACM, **IEEE Software**, **IEEE Computer**, **Journal of Medical Systems**, Digital Press, Brooks-Cole Books, Prentice-Hall, John Wiley**, Computing Reviews**, **Transactions on Electronic Computers**, **Computing Reviews**, AFIPS National Computer Conferences, Hayden Publishing, Petrocelli Books, Reston Publishing, IFIPS, Harcourt Brace Jovanovich, Inc., PWS Kent.

PROFESSIONAL SOCIETIES

Current memberships:
   Institute of Electrical and Electronics Engineers & Computer Society of the IEEE
   Association for Computing Machinery (including various SIGs)
   Sigma Xi

Past memberships:
   American Association of University Professors
   Rehabilitation Engineering Society of North America
   American Society of Electrical Engineers