

CURRICULUM VITAE

Robert L. Cannon

Laurel Park, NC

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Education

Ph.D.	(1973)	University of North Carolina at Chapel Hill	(Computer Science)
M.S.	(1963)	University of Wisconsin at Madison	(Mathematics)
B.S.	(1961)	University of North Carolina at Chapel Hill	(Mathematics)

Research Interests

Software process management
Software engineering education

Professional Experience

2001-present
Distinguished Professor Emeritus
University of South Carolina, Columbia, SC

1998-present
Visiting Scientist
Software Engineering Institute, Carnegie Mellon University, Pittsburgh, PA

1998-2001
Professor of Computer Science
University of South Carolina, Columbia, SC

1990-1991
Visiting Scientist
IBM Scientific Center, Palo Alto, CA

1987-1998
Professor and Chair of Department of Computer Science
University of South Carolina, Columbia, SC

1986-1987
Professor of Computer Science
University of South Carolina, Columbia, SC

1977-1985
Associate Professor of Computer Science
University of South Carolina, Columbia, SC

1984
Visiting Scientist, IBM Fellow Program
IBM Palo Alto Scientific Center, Palo Alto, CA

1983-1984
Visiting Professor
Computer Vision Laboratory, Center for Automation Research
University of Maryland, College Park, MD

1980-1983
Chairman, Department of Computer Science
University of South Carolina, Columbia, SC

1973-1977
Assistant Professor of Computer Science
University of South Carolina, Columbia, SC

1968-1969
Assistant Professor of Mathematics
Wilmington College, Wilmington, OH

1967-1968

Instructor of Mathematics,
Wilmington College, Wilmington, OH

1965-1966

Instructor of Mathematics
(Woodrow Wilson Intern), Philander Smith College, Little Rock, AR

Publications

- (1) Pomeroy-Huff, Marsha, Julia Mullaney, Robert Cannon, and Mark Sebern. *The Personal Software ProcessSM Body of Knowledge*. Software Engineering Institute Special Report CMU/SEI-2005-SR-003, 2005.
- (2) Putting the Personal Software ProcessSM Into Practice. *Proceedings of the Twelfth Conference on Software Engineering Education and Training*, IEEE Computer Society Press, 1999, 34-37.
- (3) Accredited computer programs in America. *Studying in America*, Empire Publishing Company, London, 1999.
- (4) Hellmann, Douglas R., Mitchell L. Patterson, Robert L. Cannon, Philip D. Moore, Christopher G. St. C. Kendall "Tools for Visual and Numerical Data Entry", *Software -- Practice and Experience*, Vol. 26, 1996.
- (5) Kendall, Christopher G. St. C., Gregory L. Whittle, Craig Fulthorpe, Phil Moore, T. Don Hickey, Robert Cannon and Douglas Hellmann, Geometric Responses in Neogene Sediments of Offshore New Zealand: Simulated as Products of Changes in Depositional Base Level Driven by Eustasy and/or Tectonics, *In B. U. Haq, ed., Sequence Stratigraphy and Depositional Response to Eustatic, Tectonic and Climatic forcing*; Kluwer Academic Publishers, 1995, 113-136.
- (6) Testing a seismic interpretation of Great Bahama Bank with a computer simulation (with Eberli, Gregor P., Christopher G. St.C. Kendall, Phil Moore, Gregory L. Whittle). *American Association of Petroleum Geologists Bulletin*, v. 78, No. 6, 1994, 981-1004.
- (7) Computer sedimentary simulation models sequence stratigraphy (with Kendall, C. G. St.C., G. L. Whittle, R. Ehrlich, P. D. Moore, and D. R. Hellmann). *Oil and Gas Journal*, 91, 1993, 46-51.
- (8) PLAYMAKER: a knowledge-based expert system (with Cheong, Dae-kyo, Strobel, J., Biswas, G., Lee, G., Kendall, G.St.C., and Bezdek, James C.) *Geobyte*, V. 7, No. 7, 1993, 28-41.
- (9) The role of sedimentary simulations in stratigraphic analysis and their application to hydrocarbon exploration and production (with Kendall, Christopher G.St.C., Gregory Whittle, Phillip Moore, Douglas Hellmann, and Keith Spainhour), *in The Pohlman Report: Review of Geoscience Workstation Technology*, V. 4, No. 6, November 1992, 44-57.
- (10) A challenge: Is it possible to determine eustasy and does it matter? (with Kendall, Christopher G.St.C., Phillip Moore, and Gregory Whittle) *In*, Dott, Robert H. Jr., ed., *Eustasy: The historical ups and downs of a major geological concept*, Geological Society of America, Memoir 180, 1992, 93-107.
- (11) Simulation of sedimentary fill of basins (with Kendall, Christopher G.St.C., Phil Moore, John Strobel, Marty Perlmutter, James Bezdek, and Gautam Biswas), *Proceedings of Kansas Geological Survey Centennial (1889-1989)*, *In* L. Watney, E. Franseen, C.G. Kendall and W.C. Ross, eds., *Sedimentary Modeling: Computer Simulations and Methods for Improved Parameter Definition*. Bulletin 233, Kansas Geological Survey, 1991, 9-29.
- (12) The simulation of the sedimentary fill of basins (with Kendall, Christopher G.St.C., John Strobel, James Bezdek, and Gautam Biswas) *Journal of Geophysical Research*, v. 96, 1991, 6911-6929.
- (13) A user interface for the NCAR community climate model (with William G. Tuel). The 2nd International graPHIGS User's Group Conference and Workshop, October 20-23, 1991, Virginia Polytechnic Institute and State University, 53-58.

- (14) Simulating the cycles and sequence stratigraphy of carbonates and clastics (with Kendall, C.St.C. Christopher, Philip Moore, James Bezdek, and Gautam Biswas), *Mem. Soc. Geol. It.*, 45, 1990, 657-669.
- (15) PLAYMAKER: A knowledge-based approach to characterizing hydrocarbon plays (with Biswas, G., X. Yu, W. Hagins, J. Bezdek, J. Strobel, C. Kendall), in James C. Bezdek, ed., *Advances in Artificial Intelligence: Applications and Theory*, World Scientific, 1990.
- (16) Syntactic learning by induction from examples and experiments (with Reed, Patrick T., Gautam Biswas, James C. Bezdek, Christopher G.St.C. Kendall). *SPIE Applications of Artificial Intelligence VIII*, v. 1293, Orlando, FL, (1990), 645-653.
- (17) PLAYMAKER: A knowledge-based approach to characterizing hydrocarbon plays (with Biswas, G., X. Yu, W.J. Hagins, J.S. Strobel, C.G.St.C. Kendall, and J.C. Bezdek), *SPIE Applications of Artificial Intelligence VIII*, v. 1293, Orlando, FL, (1990), 460-471.
- (18) Interactive collation on a microcomputer: the URICA approach (with R.L. Oakman), *Computers and the Humanities* 24, 1990.
- (19) Interactive (SEDPACK) simulation of clastic and carbonate sediments in shelf to basin settings (with J. Strobel, C.G.St.C. Kendall, G. Biswas, J. Bezdek), *Computers and Geoscience* v. 15, no. 8, (1989), 1279-1290.
- (20) Interactive simulation (SEDPACK) of clastic and carbonate sedimentation in shelf to basin settings, in T.A. Cross, ed., *Quantitative Dynamic Stratigraphy*, Prentice Hall, (1989), 433-444
- (21) Judy Creek: A case study for a two-dimensional sediment deposition simulation (with David M. Scaturro, John S. Strobel, C.G.St.C. Kendall, Jack C. Wendte, Gautam Biswas, James Bezdek). in Paul D. Crevello, James L. Wilson, J. Frederick Sarg, J. Fred Read (eds) *Controls on Carbonate Platform and Basin Development*, Society of Economic Paleontologists and Mineralogists, Special Publication No. 44 (1989), 63-76.
- (22) An expert system as a component of an integrated system for oil exploration. Presented at IEEE Southeastcon, Columbia, SC, April 1989, 32-35.
- (23) Heuristics for intermediate level road finding algorithms (with S. Vasudevan, J.C. Bezdek, and W.C. Cameron). *Computer Vision, Graphics, and Image Processing*, 44 (1988), 175-190.
- (24) Knowledge-based analysis of millimeter-wave polarization and range data (with P.D. Moore). Presented at SPIE Conference on Applications of Artificial Intelligence VI, Orlando, April, 1988.
- (25) An approximate implementation of the FCM algorithm (with J.V. Dave and J.C. Bezdek). in J.C. Bezdek, ed., *Analysis of Fuzzy Information vol. III*, CRC Press, Boca Raton, 1987.
- (26) Human interaction: an important tool in a knowledge-based workstation environment (with P. Moore). Presented at the IEEE Conference on Languages for Automation, Vienna, August, 1987.
- (27) Interactive collation on a microcomputer: the URICA! method (with R. Oakman). Presented at the Eighth International Conference on Computers and the Humanities, April, 1987.
- (28) Teaching composition in the electronically "live" classroom (with C. Matalene, T. Waldrep, R. Oakman, D. Platt, and D. Adams). Presented at the Eighth International Conference on Computers and the Humanities, April, 1987.
- (29) Decomposition and approximation of three-dimensional solids (with T-Y Phillips and A. Rosenfeld). *Computer Vision Graphics, and Image Processing*, 33 (1986), 307-317.
- (30) Segmentation of a thematic mapper image data using the fuzzy c-means clustering algorithms (with J.V. Dave, J.C. Bezdek, and M.M. Trivedi) *IEEE Trans. Geoscience and Remote Sensing GE-24* (1986), 400-408.

- (31) Knowledge-based heuristics for road-finding in MMW aerial radar imagery (with S. Vasudevan, J.C. Bezdek, and W. Cameron). Presented at the IEEE Systems, Man, and Cybernetics Conference, October, 1986.
- (32) Terrain mapping with MMW radar: an approach using sensor fusion and knowledge-based heuristics (with M.-L. Pai, J.C. Bezdek, and W. Cameron). Presented at the 1986 SPIE Cambridge Symposium on Advances in Intelligent Robotics Systems, October, 1986.
- (33) Efficient implementation of the fuzzy c-means clustering algorithms (with J.V. Dave and J.C. Bezdek). *IEEE Trans. Pattern Analysis and Machine Intelligence PAMI-8* (1986), 248-255.
- (34) Segmentation of thematic mapper image data by fuzzy c-Means clustering (with J. V. Dave, J.C. Bezdek, and M.M. Trivedi). Proceedings of the IEEE Workshop on Languages for Automation, 93-97, IEEE Computer Society, 1985.
- (35) Iterative fuzzy image segmentation (with T.L. Huntsberger and C.L. Jacobs). *Pattern Recognition 18* (1985), 131-138.
- (36) Petrographic image analysis I: analysis of reservoir pore complexes (with R. Ehrlich, S.J. Crabtree, and S. Kennedy). *Journal of Sedimentary Petrology 54* (1984), 1365-1378.
- (37) Image analysis in petrography (with S.J. Crabtree and R. Ehrlich). *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, IEEE Computer Society, 1983.
- (38) A generator program for discrete models of event systems (with E. Subrahmanian). *Simulation 36* (1981), 93-101.
- (39) Notes on canonical label languages. *International Journal of Computer and Information Sciences 8* (1979), 141-148.
- (40) An algebraic parsing technique for context-sensitive languages. *International Journal of Computer and Information Sciences 5* (1976), 257-276.
- (41) OPCOL: an optimal text collation algorithm. *Computers and the Humanities 10* (1976), 33-40.
- (42) Phrase structure grammars generating context-free languages. *Information and Control 29* (1975), 252-267.

Grants and Contracts Since 1995

- (1) Introduction of Personal Software Process and Team Software Process Technologies, South Carolina Commission on Higher Education, \$41,037.
- (2) Seismic Interpretation Reservoir Processing Modeling, Landmark, 250,000, 1995
- (3) Sea Level Curve, SCUREF, 29,992, 1994-95
- (4) Traineeships, DOE, 25,943, 1995
- (5) Stratigraphic Correlation, Geoquest, 25,000, 1995
- (6) Stratigraphic Modeling Group, CONOCO, 22,500, 1995
- (7) Stratigraphic Modeling Group, TEXACO, 22,500, 1995
- (8) Stratigraphic Modeling Group, AMOCO, 22,500, 1995
- (9) Venture Fund, USC, 11,038, 1994-95
- (10) Seismic Interpretation, Samuel, 9,000, 1995
- (11) Stratigraphic Modeling Group, Agip, 4,000, 1995
- (12) Stratigraphic Modeling Group, Mobil, 4,000, 1995
- (13) Stratigraphic Modeling Group, PetroBras, 4,000, 1995
- (14) Stratigraphic Modeling Group, Rostock Uni, 1,000, 1995
- (15) Stratigraphic Modeling Group, Amoco, 22,500, 1994.
- (16) Stratigraphic Modeling Group, Conoco, 22,500, 1994.
- (17) Stratigraphic Modeling Group, StatOil, 22,500, 1994.
- (18) Stratigraphic Modeling Group, Texaco, 22,500, 1994.
- (19) Stratigraphic Modeling Group, PetroBras, 37,500, 1994.
- (20) Stratigraphic Modeling Group, Japan National Oil, 4,000, 1994.

- (21) Stratigraphic Modeling Group, AGIP, 37,500, 1993.
- (22) Stratigraphic Modeling Group, STATOIL, 37,500, 1993.
- (23) Stratigraphic Modeling Group, CONOCO, 22,500, 1993.
- (24) Stratigraphic Modeling Group, Texaco, 22,500, 1993.
- (25) Stratigraphic Modeling Group, Amoco, 10,000, 1993.
- (26) Stratigraphic Modeling Group, Mobil, 4,000, 1993.
- (27) Stratigraphic Modeling Group, Curtin University, Perth, W. Australia, 1,000, 1993.
- (28) Stratigraphic Modeling Group, Univ. Sydney, Australia , 1,000, 1993.
- (29) Stratigraphic Modeling Group,CSIRO Div of Geomech., Australia , 1,000, 1993.
- (30) Stratigraphic Modeling Group, Australian Geological Survey, 1,000, 1993.
- (31) Stratigraphic Modeling Group, University of Adelaide, SA, 1,000, 1993.
- (32) Stratigraphic Modeling Group, Free Univ., Amsterdam, 1,000, 1993.
- (33) Stratigraphic Modeling Group, Imperial College, 1,000, 1993.
- (34) Stratigraphic Modeling Group, Duke University, 1,000, 1993.
- (35) XX: eXpert eXplorer, Texaco Oil, 10,000, 1992.
- (36) XX: eXpert eXplorer, Japan National Oil, 22,500, 1992.
- (37) XX: eXpert eXplorer, Mobil Oil, 22,500, 1992.
- (38) XX: eXpert eXplorer, Conoco Oil, 47,500, 1992.
- (39) XX: eXpert eXplorer, Texaco Oil, 22,500, 1991.
- (40) XX: eXpert eXplorer, Japan National Oil, 22,500, 1991.
- (41) XX: eXpert eXplorer, Mobil Oil, 22,500, 1991.
- (42) Equipment Grant, Digital Equipment Corporation, \$77,000, 1990.
- (43) XX: eXpert eXplorer, Texaco Oil, \$66,500, 1987-1990.
- (44) XX: eXpert eXplorer, Mobil Oil, \$66,000, 1987-1990.
- (45) XX: eXpert eXplorer, Japan National Oil, 59,500, 1987-1990.
- (46) XX: eXpert eXplorer, Amoco Oil, 44,000, 1987-1990.
- (47) Equipment Grant, AT&T Computer, \$185,000, 1988.
- (48) Freshman English on the Macintosh: Local Area Network and Expert System (with R. Oakman). Apple Computer, \$159,500, 1987.
- (49) Equipment Grant, Apollo Computer, \$14,500, 1986-1987.
- (50) Image Analysis for Characterization of Petroleum Reservoir Pore Complexes (with R. Ehrlich). National Science Foundation Grant ECS-8217191, \$89,975, 1983-1985.
- (51) Towards a Robot Sedimentary Petrographer: Determination of Algorithmic Parameters for a Microscanning System (with R. Ehrlich). National Science Foundation Grant ECS-8009825, \$87,883, 1980-1982.
- (52) Implementation and Analysis of a Medical Data Base System. Clark Memorial Health Center, Columbia, SC, \$7,200, 1979-1980.

Technical Reports

- (1) Intermediate and Higher Level Techniques for Road Detection and Tracking by Integration of Data from Multiple Radar Sources. Boeing Aerospace Company contract GK2337, 1986.
- (2) An Experimental Expert System for Road Detection from Radar Images (with J.C. Bezdek and M. Pai). Boeing Aerospace Company contract GK2337, 1985.
- (3) Segmentation of Thematic Mapper Image Data Using Fuzzy c-Means Clustering (with J.V. Dave, J.C. Bezdek, and M.M. Trivedi). Technical Report G320-3476, IBM Palo Alto Scientific Center, Palo Alto, 1985.
- (4) Pascal Design and Documentation Standards. University of South Carolina Department of Computer Science, 1985.
- (5) Efficient Implementation of the Fuzzy c-Means Clustering Algorithms (with J.V. Dave and J.C. Bezdek). Technical Report G320-3467, IBM Palo Alto Scientific Center, Palo Alto, 1984.
- (6) Multispectral Pixel Classification by Fuzzy Objective Function Algorithms, Technical Report CAR TR-51, Center for Automation Research, University of Maryland, 1984.

- (7) Decomposition and Approximation of Three-Dimensional Solids from Serial Sections (with T.-Y. Phillips and A. Rosenfeld), Technical Report CAR TR-52, Center for Automation Research, University of Maryland, 1984.
- (8) Reservoir Assessment Petrographic Image Analysis (Petrographic Image Analysis Group Geology/Computer Science), 1982.
- (9) *State Grammar Parsing*. Ph.D. dissertation, University of North Carolina at Chapel Hill, 1973.

Presentations at Professional Meetings

- (1) Organizer for Special Session on "Meeting Industry's Needs" at SIGCSE 2008.
- (2) Instructor for PSP and TSPi faculty workshop, Loyola University, Chicago, IL, 2007.
- (3) Instructor for PSP and TSPi faculty workshop, Tecnológico de Monterrey, Monterrey, Mexico, 2006.
- (4) Instructor for PSP and TSPi faculty workshop, Boise State University, Boise, ID, 2005.
- (5) Instructor for PSP and TSPi faculty workshop, DePaul University, Chicago, IL, 2004.
- (6) Instructor for PSP and TSPi faculty workshops, Marietta, GA 2002.
- (7) Teaching a Team Project Course, Special Session at the annual meeting of the ACM Special Interest Group on Computer Science Education, March, 2002.
- (8) Instructor for PSP and TSPi faculty workshops, Marietta, GA 2001
- (9) Experiences Teaching a Team Project Course, Workshop at the annual meeting of the ACM Special Interest Group on Computer Science Education, March, 2001.
- (10) Instructor for PSP and TSPi faculty workshops, Marietta, GA, 2000.
- (11) Integration of computing accreditation into ABET, ABET Annual Meeting, October, 2000.
- (12) Instructor for PSP and TSPi faculty workshops, Columbia, SC 1999.
- (13) Developed course materials and organized a three-day faculty workshop on the Team Software Process for Instruction in Columbia. July, 1999.
- (14) Organized a five-day workshop on the Personal Software Process for college faculty in Columbia. July, 1999.
- (15) Robert L. Cannon, Putting the Personal Software Process into Practice, *Proceedings of the Conference on Software Engineering Education and Training*, New Orleans, March 22-24, 1999. This paper was associated with a half-day workshop for which I was the organizer.
- (16) Organized a half-day workshop on the Personal Software Process at the Conference on Software Engineering Education and Training in New Orleans. March, 1999. Impagliazzo, John, Robert L. Cannon, Neal S. Coulter, Dennis J. Frailey, and Lawrence G. Jones, Accreditation in the computing profession. *Proceedings of the World Multiconference on Systemics, Cybernetics, and Informatics*, Caracas, July 7-11, 1997.
- (17) Kendall, Christopher G. St. C., Philip D. Moore, Phillip A. Levine, and Robert L. Cannon, Computer simulation of sedimentary fill as a guide to sequence stratigraphic interpretation : Papers and Extended Abstracts for Technical Programs for the IAMG (International Association for Mathematical Geology Annual Conference) '94 Meeting Mt. Tremblant, p. 242, 1994.
- (18) Levine, Phillip A., Christopher G. St. C. Kendall, Philip D. Moore, and Robert L. Cannon, Simulation of facies development and depositional geometries in carbonate ramp environments : Examples from the Jurassic Smackover and Permian San Andres formations: Official Program of the Annual Meeting of Amer. Assoc. Pet. Geol., p. 197, 1994.

- (19) Prueser, Robert E., Mei Leng Wong, Phillip A. Levine, Christopher G. St. Clement Kendall, Philip D. Moore, Mike Dixon, Robert L Cannon, Derek Sanders, and Douglas R. Hellmann, Simulating clastic depositional systems - testing the response to tectonic setting, sedimentation and eustatic sea level : Official Program of the Annual Meeting of Amer. Assoc. Pet. Geol., p. 239, 1994.
- (20) Kendall, C. G. St.C., P. D. Moore, G. L. Whittle, R. L. Cannon, and D. R. Hellmann. Not every stratigraphic sequence is a direct response to eustasy. 1993 SEPM Meeting Abstracts of Program, p. 31.
- (21) Whittle, G. L., C. G. St.C. Kendall, N. M. Sullivan, M. A. Fogarty, C. Krotzer, A. Lowrie, R. L. Cannon, P. D. Moore, D. R. Hellmann, and K. Spainhour. Stratigraphic modeling of two contrasting Gulf Coast Basins. Program of Annual Meeting of AAPG, p. 200.
- (22) Cheong D. K., G. L. Whittle, C. G. St.C. Kendall, R. L. Cannon, P. D. Moore, and S. H. Kim. Simulation of the Tertiary sedimentary section of the Southern East Sea (Sea of Japan) and its application to oil exploration. Program of Annual Meeting of AAPG, p. 84.
- (23) Whittle, G. L., C. G. St.C. Kendall, R. W. Scott, P. D. Moore, and R. L. Cannon. Simulation of the evolution of a Lower Cretaceous ramp to rim carbonate margin in Texas and Louisiana. Program of Annual Meeting of AAPG, p. 200.
- (24) Sullivan N. M., G. L. Whittle, C. G. St.C. Kendall, A. Lowrie, R. L. Cannon, P. D. Moore, D. R. Hellmann, and K. Spainhour. Variations explained between the sequence stratigraphy of east and west offshore Louisiana using a sedimentary simulation. Program of Annual Meeting of AAPG, p. 187.
- (25) Cannon, Robert and William Tuel. "A user interface for the NCAR community", Second International graphIGS User's Group Conference and Workshop, Virginia Tech, Blacksburg, VA, October 20-23, 1991.
- (26) Biswas, Gautam, G. Lee, Daekyo Cheong, Christopher G. St.C. Kendall, Robert Cannon, and James Bezdek. "The use of MIDST, an expert system building tool for solving geological problems", Program of Annual Meeting of AAPG, *Bulletin of the American Association of Petroleum Geologists*, v. 75, 1991, p. 543.
- (27) Kendall, Christopher, G. St.C., Phil Moore, Barbara A. Birdwell, Linda Rouch, Robert Cannon, Gautam Biswas, and James Bezdek. "Sequence stratigraphy simulations of carbonate, clastic and mixed basin margins", Program of Annual Meeting of AAPG, *Bulletin of the American Association of Petroleum Geologists*, v. 75, 1991, p. 608.
- (28) Eberli, Gregor P., Christopher G. St.C. Kendall, Marty Perlmutter, Phil Moore, Robert Cannon, Gautam Biswas and James C. Bezdek. Simulation of the response of carbonate sequences to eustatic sea level changes (Tertiary, northwest Great Bahama Bank) A scheme for enhancing seismic interpretation. *Bulletin of the American Association of Petroleum Geologists*, v. 74, 1990, p. 647.
- (29) Biswas, G., X. Yu, W.J. Hagins, J.S. Strobel, C.G. St.C. Kendall, R.L. Cannon and J.C. Bezdek. PLAYMAKER: A knowledge-based approach for characterizing hydrocarbon plays, *Bulletin of the American Association of Petroleum Geologists*, v. 74, 1990, p. 611.
- (30) Bezdek, J.C., R. Cannon, C. Kendall, G. Biswas. An overview of XX: An assistance system for hydrocarbon exploration. Florida AI Research Symposium, Cocoa Beach, Florida, April, 1990.
- (31) Simulation of sedimentary fill of basins (with C.G. St.C. Kendall, P. Moore, J. Strobel, J. Bezdek, and G. Biswas). Presented at the Kansas Geological Survey Centennial (1889-1989) Conference on Sedimentary Modeling: Computer Simulation of Depositional Sequences; subsurface Geology Series 12, *Proceedings*, Kansas Geological Survey, Lawrence, Kansas (1989) p. 1-4.
- (32) Panelist on accreditation of Computer Information Systems at SIGCSE Conference, February, 1989.

- (33) Panelist on accreditation of Computer Science programs at SIGCSE Conference, February, 1989.
- (34) Panelist on accreditation of Computer Information Systems at SIGCSE Conference, February, 1988.
- (35) Panelist on accreditation of two year Computer Science Programs at SIGCSE Conference, February, 1988.
- (36) Panelist on accreditation in the liberal arts at Computer Science Conference, February, 1986.
- (37) Segmentation of thematic mapper image data using fuzzy c-means clustering (with J.C. Bezdek, J.V. Dave, and M.M. Trivedi). Presented at the IEEE Workshop on Languages for Automation, Palma de Mallorca, Spain, June 1985.
- (38) An efficient interactive implementation of the fuzzy c-means clustering algorithm (with J.C. Bezdek and J.V. Dave). Presented at the First International Conference on Fuzzy Information Processing, Kauai, HI, July 1984.
- (39) Image analysis in petrography (with S.J. Crabtree and R. Ehrlich). Presented at the IEEE Conference on Computer Vision and Pattern Recognition, Arlington, VA, June 1983.
- (40) Thin section applications in petrography (with R. Ehrlich). Presented at the IEEE Computer Society Tenth Workshop on Applied Imagery Pattern Recognition, College Park, MD, September 1981.
- (41) A geographically correlated data base system (with B. Brinson). Presented at the 16th Annual Southeast Regional ACM Conference, Atlanta, GA, 13-15 April 1978.
- (42) Design of a simple model descriptor and its translator for discrete event systems (with E. Subrahmanian). Presented at the 16th Annual Southeast Regional ACM Conference, Atlanta, GA, 13-15 April 1978.
- (43) A VSAM-PL/I interface (with B. Ramsey). Presented at the 16th Annual Southeast Regional ACM Conference, Atlanta, GA, 13-15 April 1978.
- (44) Canonical derivations and label languages. Presented at the Computer Science Conference, Anaheim, CA, 10-12 February 1976.
- (45) OPCOL: an optimal text collation algorithm. Presented at the Second International Conference on Computers and the Humanities, Los Angeles, CA, 4-6 April 1975.
- (46) Grammars generating context-free languages. Presented at the Computer Science conference, Washington, DC, 18-20 February 1975.

Research Seminars

- 1. Sedimentary Simulation , Software Engineering Institute, Pittsburgh, PA, 1998.
- 2. The eXpert eXplorer System, IBM Palo Alto Scientific Center, Palo Alto, CA, 1991.
- 3. OSF/Motif, the X Window System, IBM Palo Alto Scientific Center, Palo Alto, CA, 1991.
- 4. An efficient interactive implementation of the fuzzy c-means clustering algorithms. Hewlett-Packard Laboratories, Palo Alto, CA, July 1984.
- 5. Petrographic Image Analysis. Computer Vision Laboratory, University of Maryland, February 1984.

Theses Supervised

- Li, Rui. Implementation of a3D Sedimentary Data Viewer as Both Application and Application Component Using the Java 3D API and JavaBeans, 1999.
- Hellmann, Douglas. Creating Direct Manipulation Interfaces for Existing Software, 1995
- Reed, Patrick T. Syntactic learning by induction from examples and experiments, 1990.

- Huang, W.-C. A numerical investigation of polychaeter using the FCM clustering algorithm, 1989.
- Moore, P. The engineering workstation: A development tool for knowledge-based image analysis, 1987.
- Vasudevan, S. Knowledge-based heuristics for road detection in aerial imagery, 1986.
- Pothering, G. A relational data base management system for academic departments, 1985.
- Walker, L. A system development methodology for large scale business applications, 1985.
- Jacobs, C. Color image segmentation: Texture and fuzzy c-means clustering, 1983.
- Cross, J. Interactive color display of logical and Minkowski operations on objects in binary images, 1983.
- Camp, D. Enhanced UNIX spooler subsystem, 1983.
- Ramesh, B. Interfacing a micro-computer with a mini-computer, 1982.
- Bezubek, F. Effects of the number of intervals on shape analysis, 1982.
- Purvis, J. Colash -- a linear text collation algorithm, 1982.
- Crimmins, J. An evaluation of the impact of a conversion from a centralized to a distributed graphics processing system, 1982.
- Gladden, P. The development of an image enhancement testing system, 1981.
- Selander, R. Long-range administration data processing for Newberry College, 1981.
- Fico, C. Automated particle shape analysis -- Development of a microprocessor-controlled image analysis system, 1980.
- Bartolome, A. The Duchess data base management system: A clinical implementation and an analysis, 1980.
- Ibreak, A. A structured assembler for the Motorola M6800 microprocessor, 1980.
- Dufford, M. Data processing management in South Carolina state government, 1980.
- DeRamirez, M. Statistical security for the Ingres data base system, 1979.
- Subrahmanian, E. A simulation program generator for discrete event systems, 1979.
- Cauthen, S. A ten statement cross compiler for the Motorola M6800, 1978.
- Brinson, B. A geographically correlated data base system, 1978.
- Carale, L. On-line maintenance of GBF/DIME files, 1978.
- Krishnamurthy, R. Design and implementation of an inverted data base, 1977.
- Gott, G. State of South Carolina municipal debt project, 1974.

Patents

- "Analysis of Reservoir Pore Complexes", Inventors: R. Ehrlich, S.J. Crabtree, Jr., and R. Cannon (# 4,783,751 assigned to the University of South Carolina, awarded 1988).

Software Development

- SedPak: A Stratigraphic Modeling program (with C. Kendall, P. Moore, D. Hellmann, M. Patterson, D. Sanders)
- URICA!: User Response Interactive Collation Assistant (with Robert L. Oakman).
- LiveWriter: Editors and writers in the classroom (with Robert L. Oakman and Carolyn Matalene).
- XX: eXpert eXplorer: Interactive basin simulation and expert assistant for characterizing plays (with Christopher G. St. C. Kendall, James C. Bezdek, and Gautam Biswas).

Other Experience

- (1) Software Engineering Institute SEI Certified PSP Developer, 2005.

- (2) Authorized by the Software Engineering Institute as a coach for the Team Software Process, 2004.
- (3) Fulbright Senior Specialist Lecturer, Jaypee University of Information Technology and Jaypee Institute of Information Technology (India), November-December 2004.
- (4) Board of Advisors, Department of Computer Science and Software Engineering, Rose-Hulman Institute of Technology, 2001-present.
- (5) ABET Board of Directors Representative Director, 2000-2005.
- (6) Authorized by the Software Engineering Institute as an instructor for the Personal Software Process, 1997.
- (7) Computer Science Accreditation Board (1993-1999, Treasurer 1996-97, Vice-President 1997-98, President 1998-99, Past President 1999-2001).
- (8) Computer Sciences Accreditation Commission: program evaluator (1985), team chair (1986-92), Executive Committee (1987- 1994), Executive Committee Secretary (1988-1990), Executive Committee Vice-Chair (1990-1992), Executive Committee Chair (1992-1993).
- (9) Accreditation Committee of Association for Computing Machinery (1987-2003, Chairman 1987-89).
- (10) Lecturer for tutorial on Expert Systems, Columbia, SC, April 1986.
- (11) Invited guest of Shanxi University, People's Republic of China. Presented three lectures and participated in meetings with faculty and students to discuss computers and their applications, 1981.
- (12) Instructor for more than ten three-day microprocessor workshops sponsored by the Institute of Electrical and Electronics Engineers, 1978-1982.
- (13) Office of Prosecution Management, Office of the Attorney General of South Carolina -- evaluation of system for maintaining data on all criminal court cases in South Carolina, 1979.
- (14) Carolina Health Survey, School of Public Health, University of South Carolina and South Carolina Department of Health and Environmental Control -- designed and supervised installation of data entry system for three year survey to receive data from remote interactive terminals at various locations in South Carolina, 1977-1979.
- (15) South Carolina Heart Association -- Member of Resource Inventory Task Group, 1977-1980.

Honors and Awards

CSAB Fellow, 2003
Upsilon Pi Epsilon, 2004
Fulbright Senior Specialist, 2004

Memberships

Association for Computing Machinery
IEEE (Senior Member)