

Professional Vitae

Michael R. Wick

Computer Science Department
University of Wisconsin – Eau Claire
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Education

Ph.D., Computer Science 1989
University of Minnesota
Thesis Title: *Reconstructive Explanation for Expert Systems*

M.S., Computer Science 1986
University of Minnesota

B.S., Mathematics and Computer Science 1984
University of Wisconsin – Eau Claire

Employment

Chair, Department of Computer Science, University of Wisconsin – Eau Claire 2004-pres
Professor, University of Wisconsin – Eau Claire 2003-pres
Senior Software Engineer, Lowes Creek Consulting, L.L.C. 1993-pres
Adjunct Professor, University of Minnesota 1991-pres
Associate Professor with Tenure, University of Wisconsin – Eau Claire 1995-2003
Assistant Professor, University of Wisconsin – Eau Claire 1991-1994
Assistant Professor, Washington State University 1989-1991
Research Assistant, University of Minnesota 1985-1989
Teaching Assistant, University of Minnesota 1986-1989

Honors

Nominated for CASE (Council for Advancement and Support of Education) Professor of the Year 2005
Honorable Mention in Science, Faculty/Student Collaborative Research Poster Day 2001
Nominated for NSF Presidential Young Investigator Award 1990
American Electronics Association Doctoral Fellowship 1985-1989
University of Minnesota Computer Science Doctoral Fellowship 1986
University of Minnesota AI Doctoral Award 1986
Microelectronics and Information Sciences Doctoral Fellowship 1984-1985
Graduated Magna cum Laude, University of Wisconsin – Eau Claire 1984
Mathematics Honor Society 1980-1984

Academic Affairs Leadership Positions

UW – Eau Claire Faculty Representative to UW – System 2005 – pres
Department Chair, Department of Computer Science, UW – Eau Claire 2005 – pres
Chair, University Senate Faculty Personnel Committee 2003 – pres
Chair, University Senate Compensation Committee 1997 – 2002, 2004 – pres
Chair, Department of Computer Science Faculty Personnel Committee 1998, 2000 – 2004
Chair, University Senate Faculty Awards Committee 1996
Chair, University Senate Nominating Committee 1996

Leadership Workshops and Training Seminars

The Art of Working with People Seminar 2005
Department Chair Leadership Training Seminar Series 2005
ABET Program Assessment Workshop 2005

Management Skills for First-Time Supervisors Seminar	2005
National Science Foundation Council on Undergraduate Research Workshop	2005
ABET Program Evaluator Training	2005
Synergy Economic Development Workshop	2004, 2005
New Department Chairs Training Workshop	2004

Professional Activities

ABET-CSAB Program Evaluator	2005
Co-organizer, Workshop on Teaching Design Patterns in CS1, SIGCSE	2004
CCLI Proposal Reviewer, National Science Foundation	2004
Co-organizer, 2 nd Workshop on Killer Examples, OOPSLA	2003
Instructional Laboratory Improvement Proposal Review, National Science Foundation	1998
Chair, IJCAI International Workshop on Explanation	1993
Co-Chair, AAAI National Workshop on Explanation	1990
Chair, AAAI National Workshop on Explanation	1988
Article Reviewer,	
<i>IEEE Computer</i>	
<i>Expert Systems with Application</i>	
<i>Computers and Mathematics with Applications</i>	
<i>IEEE Expert</i>	
<i>IEEE Transactions on Systems, Man, and Cybernetics</i>	
<i>International Journal of Man-Machine Studies</i>	
<i>IEEE Tools for Artificial Intelligence</i>	
<i>Information Systems, An International Journal</i>	
<i>SIGCSE Technical Symposium on Computer Science Education</i>	
<i>Midwest Instruction and Computing Symposium</i>	

University of Wisconsin - System Committees

University of Wisconsin – UW Parkside “Notestein” Committee on Tenure Appeal	2004
University of Wisconsin System Advisory Committee on Compensation	2000 – pres

University of Wisconsin – Eau Claire Committees

University Senate Faculty Personnel Committee	1999 – pres
University Senate Compensation Committee	1995 – pres
Computer Science Faculty Personnel Committee	1995 – pres
University Senate Member	1992 – pres
University Senate Ad Hoc Committee on Post-Tenure Salary Adjustments	2002 – 2004
University Senate Physical Plant Planning Committee	1998 – 1999
University Senate Instructional Technology Committee	1996 – 1999
Arts and Sciences Ad hoc Computational Science Committee	1997 – 1998
University Senate Budget Committee	1995 – 1997
University Senate Faculty Awards Committee	1994 – 1996
University Senate Nominating Committee	1996

Research Interests

Computer Science Education, Object-Oriented Design, Aspect-Oriented Design, Software Engineering, Artificial Intelligence, Expert Systems and Explanation

Grants

“Collaborative Research: Teaching CS1 in a game-immersed, gender-neutral environment”, *National Science Foundation*, \$89,411, pending (with Drs. Daniel Stevenson and Tiffany Barnes).

“A Configurable Decision Support System for Scheduling Problems” *University of Wisconsin – Eau Claire Faculty/Student Collaborative Research Program*, \$2,200, 2005. Student Researchers: Julie Weilenga and Thomas Richmond.

“Developing a Program Visualization Tool using Aspect-Oriented Programming” *University of Wisconsin – Eau Claire Faculty/Student Collaborative Research Program*, \$1,500, 2004. Student Researcher: Mr. Christopher Andringa.

“Developing a Shared Suggestive Sell Knowledge Repository using the Internet”, *University of Wisconsin – Eau Claire Faculty/Student Collaborative Research Program*, \$1,800, 2003. Student Researcher: Ms. Marcia Vaughn (with Dr. Paul Wagner).

“A Java Run-Time Simulator (JaRTS) to Assist Understanding of the Java Execution Environment”, *University of Wisconsin – Eau Claire Faculty/Student Collaborative Research Program*, \$1,800, 2002. Student Researcher: Mr. Nicolas Karpenske (with Dr. Paul Wagner).

“A Research Proposal to Develop and Intelligent Data Analysis Web Service”, *University of Wisconsin – Eau Claire Faculty/Student Collaborative Research Program*, \$1,800, 2002. Student Researcher: Ms. Marcia Vaughn (with Dr. Paul Wagner).

“DNA Computing Simulation.” *University of Wisconsin – Eau Claire Faculty/Student Collaborative Research Program*, \$1,800. 2002. Student Researcher: Mr. Michael LeMay.

“Artificial Neural Networks for Voice Recognition.” *University of Wisconsin – Eau Claire Faculty/Student Collaborative Research Program*, \$1,500. 2000. Student Researchers: Ms. Kelly Larsen and Mr. Kevin Schultz.

“Transdermal Product Development”, *3M Corporation Travel Grant*, \$2,000, 1999.

“Electronic Documentation,” *University of Wisconsin – Eau Claire NET Program*, \$1,468, 1998 (with D. Jerz).

“Legacy Learning”, *National Science Foundation*, \$51,750, 1997 (with J. Tan and T. Moore).

“Robotics in Undergraduate Education,” *University of Wisconsin – Eau Claire Differential Tuition Program*, \$1,500 (with J. Tan and T. Moore), 1997.

“Computing for the Sciences and Mathematics,” *University of Wisconsin – Eau Claire Faculty Development Program*, \$5,000, 1996.

“Legacy Learning: An Approach to Course Integration,” *University of Wisconsin Summer Grant Development Program*, \$2000, 1996 (with J. Tan and T. Moore)

“A Genetic Algorithm Approach to Course Scheduling.” *University of Wisconsin – Eau Claire Faculty/Student Collaborative Research Program*, \$1,800. 1996. Student Researcher: Mr. William Hickey.

“Active Expert System Explanation.” *University of Wisconsin – Eau Claire University Research and Creative Activity Grant Program*. \$11,958. 1992-1993. Co-Investigator: Mr. Thomas Moore.

“Scientific Investigation in Introductory Computer Science.” *National Science Foundation*, \$199,640, 1991-1993. Co-Investigator: Dr. David Nuesse.

“Expertise in Integral Calculus.” *University of Wisconsin – Eau Claire Extra-mural Grant Development Program*. \$2,000. 1993.

“Explanation versus Problem Solving: A Study in Integral Calculus.” *University of Wisconsin – Eau Claire Interdisciplinary Research Program*. \$940. 1993. Co-Investigator: Dr. Thomas Wineinger.

“Design by Reconstructive Derivational Analogy.” *National Science Foundation Center for Research on Analog/Digital Integrated Circuits*. \$20,000. 1991.

“Artificial Intelligence Education and Research.” *3M Corporation Equipment Grant*, \$10,200. 1990.

Book Chapters

M.R. Wick, "Second Generation Expert System Explanation," In J.M. David, J.P. Krivine, and R. Simmons (Eds.), *Second Generation Expert Systems*, Springer-Verlag Publishing, pp. 614..640, 1993.

J.M. Long, J.R. Slagle, E.A. Irani, M.R. Wick, J.W. Johnson, and J.P. Matts, "Two Expert Systems Applied to Clinical Trials," In J. Liebowitz (Ed.), *Operational Expert System Applications*, Pergamon Press, 1992.

Refereed Publications

M.R. Wick, “A Kaleidoscope of Design Patterns,” *submitted to the Journal on Educational Resources in Computing*.

M.R. Wick, P.J. Wagner, “Using Market-Basket Analysis to Integrate and Motivate Topics from Discrete Structures,” *submitted to the 37th Technical Symposium on Computer Science Education*.

M.R. Wick, D.E. Stevenson, “On Using Scheme to Teach Prolog”, *submitted to the 37th Technical Symposium on Computer Science Education*.

T.A. Barnes, M.R. Wick, “Game2Learn: Teaching CS1 in a Game-Immersed, Gender-Neutral Environment”, *submitted to the 37th Technical Symposium on Computer Science Education*.

M.R. Wick, D.E. Stevenson, and P.J. Wagner, “Using Testing and JUnit Across the Curriculum”, *Proceedings of the 36th Technical Symposium on Computer Science Education*, pp. 236-240, 2005.

M.R. Wick, “Teaching Design Patterns in CS1: a Closed Laboratory Sequence based on the Game of Life.” *Proceedings of the 36th Technical Symposium on Computer Science Education*, pp. 487-491, 2005.

D.E. Stevenson, M.R. Wick, and S. Ratering, “Steganography and Cartography: Interesting Assignments that Reinforce Machine Representation, Bit Manipulation, and Discrete Structures Concepts,” *Proceedings of the 36th Technical Symposium on Computer Science Education*, pp. 277-281, 2005.

M.R. Wick, “Using the Game of Life to Introduce Freshman to the Power and Elegance of Design Patterns,” *Proceedings of the Educator’s Symposium held during the 19th Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA), Educator’s Symposium, Conference Companion*, pp. 103-105, 2004.

M.R. Wick, D.E. Stevenson, A.T. Phillips, “Seven Design Rules for Teaching Students Sound Encapsulation and Abstraction of Object Properties and Member Data”, ,” *Proceedings of the 35th SIGCSE Technical Symposium on Computer Science Education*, pp. 100-104, 2004.

A.T. Phillips, D.E. Stevenson, and M.R. Wick, “Implementing CC2001: A Breadth-First Introductory Course for a Just-In-Time Curriculum Design,” *Proceedings of the 34th SIGCSE Technical Symposium on Computer Science Education*, pp. 238-242, 2003.

- M.R. Wick, "On Object-Oriented Refactoring of Huffman Encoding using the Java Collections Framework," *Proceedings of the 34th SIGCSE Technical Symposium on Computer Science Education*, pp. 283-287, 2003.
- M.R. Wick and A.T. Phillips, "Comparing the Template Method and Strategy Design Patterns in a Genetic Algorithm Application," *SIGCSE Bulletin inroads* 34(4):76-80, 2002.
- M.R. Wick, D.E. Stevenson, and A.T. Phillips, "Using an Environment Chain Model to Teach Inheritance in C++," *Proceedings of the 33rd SIGCSE Technical Symposium on Computer Science Education*, pp. 297 – 301, 2002.
- M.R. Wick, "Kaleidoscope: Using Design Patterns in CS1," *Proceedings of the 32nd SIGCSE Technical Symposium on Computer Science Education*, pp. 258 – 262, 2001.
- M.R. Wick and D.E. Steveson, "A Reductionist Approach to a Course on Programming Languages", *Proceedings of the Thirty Second SIGCSE Technical Symposium on Computer Science Education*, pp. 253 – 257, 2001.
- M.R. Wick, "On Using C++ and Object-Orientation in CS1: The Message is Still More Important than the Medium," *Proceedings of the 26th SIGCSE Technical Symposium on Computer Science Education*, pp. 322 – 326, 1995.
- M.R. Wick, P. Dutta, T. Wineinger, and J. Conner, "Reconstructive Explanation: A Case Study in Integral Calculus," *Expert Systems with Applications*, 8(4):463-473, 1995.
- T.K. Moore, M.R. Wick, and B. Peden, "Assessing Students' Critical Thinking Skills and Attitudes Toward Computer Science," *SIGCSE Bulletin*, 26(1):263-267, ACM Press, March, 1994.
- M.R. Wick, "Explanation as a Primary Task in Expert Problem Solving: A Perspective on the 1993 IJCAI Workshop on Explanation," *Knowledge Engineering Review*, 9(1):78-82, 1994.
- T.K. Moore, A.G. Rich, and M.R. Wick, "Scientific Investigation in a Breadth-First Approach to Introductory Computer Science," *SIGCSE Bulletin*, 25(1):63-67, Association for Computing Machinery Press, March, 1993.
- M.R. Wick, "Expert System Explanation in Retrospect: A Case Study in the Evolution of Expert System Explanation," *Journal of Systems and Software*, 19(2):159-169, 1992.
- M.R. Wick and W.B. Thompson, "Reconstructive Expert System Explanation," *Artificial Intelligence*, 54:33-70, 1992.
- M.R. Wick and J.R. Slagle, "The Partitioned Support Network for Expert System Justification," *IEEE Transactions on Systems, Man, and Cybernetics*, pp. 528-535, May/June 1989.
- M.R. Wick and J.R. Slagle, "An Explanation Facility for Today's Expert Systems," *IEEE Expert*, pp. 26-36, 1989.
- M.R. Wick, "The 1988 AAAI Workshop on Explanation," *AI Magazine*, 10(3):22-26, 1989.
- J.R. Slagle and M.R. Wick, "A Method for the Evaluation of Candidate Expert System Applications," *AI Magazine*, 9(4):44-53, Winter 1989.
- M.R. Wick and W.B. Thompson, "Reconstructive Explanation: Explanation as Complex Problem Solving," *Proceedings of the Eleventh International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 135-140, 1989.

J.M. Long, J.R. Slagle, M.R. Wick, E.A. Irani, P.R. Weisman, J.P. Matts, and P.F. Clarkson, "Integrating Expert Systems With a Large Clinical Research Database: The POSCH AI Experience," Proceedings of the Conference on Expert Systems in Decision Support In Medicine, 1988.

M.R. Wick, W.B. Thompson, and J.R. Slagle, "Artificial Intelligence Research in the Computer Science Department at the University of Minnesota," A Review of Products, Services, and Research (AAAI), pp. 37-47, 1988.

J.M. Long, J.R. Slagle, M.R. Wick, E.A. Irani, P.R. Weisman, J.P. Matts, P.F. Clarkson, "POSCH Experience Integrating Expert Systems and Clinical Trial Data Analysis," Lecture Notes in Medical Informatics, Springer-Verlag, Vol. 36, pp. 355-358, 1988.

J.M. Long, J.R. Slagle, M.R. Wick, A.S. Leon, L.L. Fitch, J.P. Matts, J.N. Karnegis, J.K. Bissett, H.S. Sawin, and J.P. Stevenson, "An Example of Expert Systems Applied to Clinical Trials: Analysis of Serial Graded Exercise ECG Test Data," Controlled Clinical Trials, 8:136-145, 1987.

M. Poliac, J. Slagle, M.R. Wick, and E. Lee, "A Crew Scheduling Problem," Proceedings of the First Annual International Conference on Neural Networks, IEEE, 1987.

J.M. Long, J.R. Slagle, M.R. Wick, J.P. Matts, and A.S. Leon, "The Eta Project: A Case Study Of Expert Systems For Analysis Of Serial Clinical Trial Data," Proceedings of the Fifth Conference on Medical Informatics, MEDINFO'86, pp. 155-159, 1986.

J.R. Slagle, M.R. Wick, and M. Poliac, "AGNESS: A Generalized Network-based Expert System Shell," Proceedings of the Fifth National Conference on Artificial Intelligence (AAAI), pp. 996-1002, 1986.

J.M. Long, J.R. Slagle, M.R. Wick, J.P. Matts, and A.S. Leon, "Using an Expert System to Automate the Element of Clinical Judgement in Data Analysis," Proceedings of the Seventh Annual Meeting of the Society for Clinical Trials, May 1986.

Other Publications

A.T. Phillips and M.R. Wick, "Generating Binary Reflected Gray Codes: A Divide and Conquer and Dynamic Programming Application", *Proceedings of the 38th Annual Midwest Instruction and Computing Symposium*, 2005.

S.J. Ratering and M.R. Wick, "Using an Environment Chain Model to Teach Inheritance in C#", *Proceedings of the 37th Annual Midwest Instruction and Computing Symposium*, University of Minnesota - Morris, April 2004.

M.Vaughn, P.J. Wagner, and M.R. Wick, "Using Web Services to Support a Shared Knowledge Repository for Market Basket Analysis and Suggestive Sell Strategies", *Proceedings of Midwest Instruction and Computing Symposium*, University of Minnesota - Morris, April 2004.

B.D. Britt and M.R. Wick, "The Use of Design Rationales to Reconstruct Design Plans," *Working Notes of the Workshop on Design Rationale Capture & Reuse held during the Tenth National Conference on Artificial Intelligence*, 1992.

M.R. Wick, "On the Role of Explanation in Second Generation Expert Systems," *Working Notes of the 1992 AAAI Spring Symposium on Producing Cooperative Explanations*, 1992.

B.D. Britt and M.R. Wick, "Design by Reconstructive Derivational Analogy: An Overview," *Proceedings of Northcon'91*, 1991.

M.R. Wick and B.D. Britt, "A Reconstructive Approach to Automated Design Synthesis," *Proceedings of the First Great Lakes Symposium on VLSI*, 1991.

M.R. Wick and B.D. Britt, "Explanation-based and Similarity-based Learning: A Unifying View," *Proceedings of the IASTED International Conference on Machine Learning and Neural Networks*, 1990.

M.R. Wick and W.B. Thompson, "The Problems of Explanation and the Corresponding Coupling Spectrum," *AAAI Workshop on Explanation held during the Eighth National Conference on Artificial Intelligence*, 1990.

C.L. Paris, M.R. Wick, and W.B. Thompson, "The Line of Reasoning Versus the Line of Explanation," *Proceedings of the 1988 AAAI Workshop on Explanation*, pp. 4-7, 1988.

J.M. Long, J.R. Slagle, M.R. Wick, P. Weisman, J.P. Matts, M. Linssen, R. Brykowsky, J.R. Stevenson, M. Pearce, J. Bissett, H. Sawin, and A.R. Leon, "Using Artificial Intelligence to Evaluate Performance Over Time on a Graded Exercise Test," *Proceedings of the 37th Annual Scientific Session, American College of Cardiology*, March 1988.

J.M. Long, J.R. Slagle, M.R. Wick, E.A. Irani, P.R. Weisman, J.P. Matts, and P.F. Clarkson "POSCH Experience Integrating Expert Systems and Clinical Data Analysis," *Proceedings of the 33rd Annual Meeting of Expert Systems and Decision Support in Medicine*, 1988.

J.M. Long, J.R. Slagle, M.R. Wick, E.A. Irani, P.R. Weisman, J.P. Matts, and P.F. Clarkson "Lessons Learned While Implementing Expert Systems in the Real World of Clinical Trials Data Analysis: The POSCH AI Project," *Proceedings of the IEEE Symposium on the Engineering of Computer-Based Medical Systems*, pp. 167-173, June 1988.

J.M. Long, J.P. Matts, M.R. Wick, A.R. Leon, P.R. Weisman, P.F. Clarkson, J.R. Slagle, "Evaluating Change Over Time in Performance on A Graded Exercise Electrocardiographic Test by POSCH Control Group Patients," *Proc. of the 61st Scientific Sessions, American Heart Association*, 1988.

J.M. Long, J.R. Slagle, M.R. Wick, J.P. Matts, and E. Irani, "Use of Expert Systems in Medical Research Data Analysis: The POSCH AI Project," *Proceedings of the National Computer Conference*, pp. 769-776, 1987.

M.R. Wick and J.R. Slagle, "A Journalistic Explanation Facility For An Expert System Shell," *Proceedings of the ACM Computer Science Conference*, p. 380, 1987.

J.R. Slagle, J.M. Long, M.R. Wick, J.P. Matts, and A.S. Leon, "An Expert System For Treadmill Exercise ECG Test Analysis," *Proceedings of the ACM Computer Science Conference*, p. 421, 1986.

J.R. Slagle, J.M. Long, M.R. Wick, J.P. Matts, and A.S. Leon, "Expert Systems In Medical Studies -- A New Twist," *Proceedings of the Third Conference on Applications of Artificial Intelligence, SPIE*, pp. 25-29, 1986.

Selected Presentations

"Introduction to Data Mining," presented at the 21st Annual Information Technology Conference, Eau Claire, WI, March, 2005.

"Design Patterns in CS1/CS2: The Game of Life", Presented at the *Workshop on Design Patterns in CS1/CS2 held during the 35th SIGCSE Technical Symposium on Computer Science Education*, 2004.

"An Object-Oriented Refactoring of Huffman Encoding using the Java Collections Framework," Presented at the *34th SIGCSE Technical Symposium on Computer Science Education*, 2003.

"Kaleidoscope: A Killer Example," to be presented at the Workshop on Killer Design Pattern Examples, *17th Annual ACM Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA)*, 2002.

“Kaleidoscope: Using Design Patterns in CS1,” Presented at the *32nd SIGCSE Technical Symposium on Computer Science Education*, 2001.

“Illustrating Design Patterns with a Simple Kaleidoscope Application,” Presented as part of the University of Wisconsin – Eau Claire Computer Science Seminar Series, 2000.

“On Using C++ and Object-Orientation in CS1: The Message is Still More Important than the Medium” Presented at the *26th SIGCSE Technical Symposium on Computer Science Education*, 1995.

“Introduction to Artificial Intelligence,” Presented to the *Chippewa Valley Computing Association*, 1994.

“Reconstructive Explanation,” Presented at *the International Joint Conference on Artificial Intelligence (IJCAI) Workshop on Expert System Explanation*, 1993.

“On the Role of Explanation in Second Generation Expert Systems,” Presented at the *American Association for Artificial Intelligence (AAAI) Spring Symposium on Producing Cooperative Explanations*, 1992.

“Explanation-Based and Similarity-Based Learning: A Unifying View,” Presented at the *IASTED International Conference on Machine Learning and Neural Networks*, 1990.

“The Problems of Explanation and the Corresponding Coupling Spectrum,” Presented at the *American Association for Artificial Intelligence (AAAI) Conference Workshop on Explanation*, 1990.

“Reconstructive Explanation: Explanation as Complex Problem Solving,” Presented at the *International Joint Conference on Artificial Intelligence (IJCAI)*, 1989.

“The Line of Explanation versus the Line of Reasoning,” Presented at the *American Association for Artificial Intelligence (AAAI) Conference Workshop on Explanation*, 1988.

“AGNESS: A Generalized Network-based Expert System Shell,” Presented at the *American Association for Artificial Intelligence (AAAI) Conference*, 1986.

Selected Computer Science Workshop Participation

“Workshop on Design Pattern in CS1/CS2,” held during the *35th SIGCSE Technical Symposium on Computer Science Education*, 2004. (co-organizer of the workshop)

“Nifty Examples in Discrete Mathematics,” held during the *35th SIGCSE Technical Symposium on Computer Science Education*, 2004.

“Patterns @ Work,” *18th Annual ACM Conference on Object-Oriented Programming Systems, Languages, and Applications (OOPSLA)*, 2003.

“Patterns of Enterprise Application Architecture,” *18th Annual ACM Conference on Object-Oriented Programming Systems, Languages, and Applications (OOPSLA)*, 2003.

“Eclipse Extensions – Making the Connections,” *18th Annual ACM Conference on Object-Oriented Programming Systems, Languages, and Applications (OOPSLA)*, 2003.

“Workshop on Killer Design Pattern Examples,” *17th Annual ACM Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA)*, 2002.

“Workshop on Design Patterns,” University of Wisconsin – Stevens Point, 2000.

“E-Commerce Systems,” *COMDEX International Conference*, 1999.

“Workshop on Expert System Explanation,” International Joint Conference on Artificial Intelligence (IJCAI) 1993.

“Spring Symposium on Producing Cooperative Explanations,” American Association for Artificial Intelligence (AAAI), 1992.

“Workshop on Explanation,” American Association for Artificial Intelligence (AAAI) National Conference, 1990.