# **Curriculum Vitae**

### Dr. Jianhua Chen

Department of Computer Science Louisiana State University Baton Rouge, LA 70803-4020 (225) - 578 - 4340

### **Research Interests**

Artificial Intelligence, Machine learning and Data Mining, Data Clustering, Fuzzy Logic and Fuzzy Systems, Cyber Security, Knowledge representation and automated reasoning, Intelligent tutoring.

#### **Professional Experiences**

May 2002 - July 2002.

ASEE-NAVY Summer Faculty Fellow, Navy Research Lab, Stennis Space Center.

August 1995 - Present.

Associate Professor, Department of Computer Science, Louisiana State University, Baton Rouge, Louisiana, USA.

August 1989 -- July 1995.

Assistant professor, Department of Computer Science, Louisiana State University, Baton Rouge, Louisiana, USA.

August 1988 -- July 1989.

Visiting Assistant Professor, Department of Computer Science, Louisiana State University, Baton Rouge, Louisiana, USA.

January - May 1988.

Senior researcher and engineer, China Software Technique Corporation, Beijing, China. Research and system development in expert systems.

Education

Ph.D.	Computer Science	Jilin University, China Advisor: Dr. X. Wang	1988
M.S.	Computer Science	Jilin University, China	1985
B.S.	Computer Science	Jilin University, China	1982

#### **Awards and Honors**

- The TAF LSU Undergraduate Teaching Award, May 2005.
- The TAF College of Basic Sciences Distinguished Teaching Award, March 2005.
- Service Award for service as the Publication Chair for NAFIPS 2002 (North America Fuzzy Information Processing Society).
- Directed graduate student research project that won the third-place award in the graduate student poster competition in the 2002 EPSCoR Conference (Sponsored by NSF and LA Board of Regents).
- Top Student Awards, 1978-1981, Jiln University, Chang Chun, PR. CHINA.

#### Refereed Journal Publications (most recent first)

- 37. G. Ding, J. Chen, R. Lax and P. Chen. Graph-Theoretic Method for Merging Security System Specifications. To Appear: *Journal of Information Sciences*, 2007.
- 36. G. Ding, R. Lax, J. Chen and P. Chen. Formulas for Approximating Pseudo-Boolean Random Variables. To appear: *Discrete and Applied Mathematics*, 2007
- 35. G. Ding, R. Lax, P. Chen and J. Chen. Asymptotic Behavior of Linear Approximations of Pseudo-Boolean Functions. *Journal of Advanced Computational Intelligent Informatics*, Vol. 11, No. 4, 2007.
- 34. Patrick McDowell, Brian Bourgeois, Pamela J. McDowell, S.S. Iyengar and Jianhua Chen. Relative Positioning for Team Robot Navigation. To Appear: *Autonomous Robots*, 2007.
- 33. S. Seiden, P. Chen, R. Lax, J. Chen, G. Ding. New Bounds on Randomized Busing. *Theoretical Computer Science*, 332 (2005), 63-81.
- 32. J. Chen, D.H. Kraft, M.J. Martin-Bautista, M. A. Villa, Induction and Inference with Fuzzy Rules for Textual Information Retrieval. Book chapter In: *Data Mining and Knowledge Discovery: Approaches Based on Rule Induction Techniques*, edited by E. Triantaphyllou and G. Felici, to be published by Kluwer Academic Publishers, 2006.
- J. Chen, Y. Chen, W. Gao, B. Zhang, A. Gider, S. Vuppala, D. Kraft. Fuzzy Clustering and Intelligent Search for A Web-based Fabric Database. Book Chapter in *Computational Web Intelligence -Intelligent Technology for Web Applications*, Y. Zhang, A. Kandel, T. Lin, Y. Yao Eds., World Scientific Publishers, 2004, pp. 117-134.
- D. Kraft, M.J. Martin-Bautista, J. Chen, and D. Sanchez. Rules and Fuzzy Rules in Text: Concept, Extraction and Usage. Special Issue of International Journal of Approximate Reasoning, 34(2003), pp. 145-161.
- 29. E. Yilmaz, E. Triantaphyllou, J. Chen, W. Liao, A Heuristic for Mining Association Rules in Polynomial Time, *Mathematical and Computer Modeling*, 37(2003), pp. 219-233.
- 28. M.J. Martin-Bautista, D.H. Kraft, M.A. Vila, J. Chen, J. Cruz, User Profiles and Fuzzy Logic for Web Retrieval Issues, Special Issue of Journal of Soft Computing, 6(2002), pp. 365-372.
- D. Kraft, J. Chen, M.J. Martin-Bautista, M.A. Vila, Textual Information Retrieval with User Profiles Using Fuzzy Clustering and Inferencing, *Intelligent Exploration of the Web*, Piotr Szczepaniak, J. Segovia, J. Kacprzyk, L. Zadeh (Eds.), Springer-Verlag, 2002, pp. 152-165.

- S. N. Sanchez, E. Triantaphyllou, J. Chen, W. Liao, "An incremental learning algorithm for constructing Boolean functions from positive and negative examples", *Journal of Computers and Operations Research*, 29(2002), pp. 1677-1700.
- 25. P. Srinivasan, M. Ruiz, D. Kraft, J. Chen, Vocabulary Mining for Information Retrieval: Rough Sets and Fuzzy Sets, *Information Processing and Management*, 37 (2001), pp. 15-38.
- 24. S. Kundu, J. Chen, Learning Rules from Numerical Data by Combining Geometric and Graph Theoretic Approach, *Robotics and Autonomous Systems*, Elsevier, B.V., 33 (2000), pp. 135-147.
- 23. P. Srinivasan, D. Kraft, J. Chen, Rough and Fuzzy Sets for Data Mining of a Controlled Vocabulary for Textual Retrieval, In: *Soft Computing in Information Retrieval: Techniques and Applications*, Springer, F. Crestani, G. Pasi, Eds. pp. 358-372. June 2000.
- 22. J. Chen, Embedding Prioritized Circumscription in Disjunctive Logic Programs, *Journal of Experimental and Theoretical AI*, 11(1999), pp. 553-563.
- J. Chen, A. Mikulcic, D. Kraft, An Integrated Approach to Information Retrieval with Fuzzy Clustering and Fuzzy Inferencing, in Pons, O., Amparo Vila, M., and Kacprzyk, J. (eds.), *Knowledge Man*agement in Fuzzy Databases, Heidelberg, Germany: Physica-Verlag, 1998.
- 20. J. Chen, A Sound and Complete Proof Theory for the Generalized Logic of Only Knowing, *Journal* of *Experimental and Theoretical AI*, 10(1998), pp. 421-438.
- 19. J. Chen, The Generalized Logic of Only Knowing That Covers the Notion of Epistemic Specifications, *Journal of Logic and Computation*, Vol. 7, No. 2, 1997, pp. 159-174.
- S. Kundu, J. Chen, A New Method of Circumscribing Beliefs: the Propositional Case, *Fundamenta Informatica*, Vol. 29, No. 4, 1997, pp. 383-390.
- 17. S. Kundu, J. Chen, Fuzzy Logic or Lukasiewicz Logic: A Clarification, *Fuzzy Sets and Systems*, **95(1998)**, pp. 369-379.
- 16. R.R. Brooks, S.S. Iyengar, J. Chen, Automatic Correlation and Calibration of Noisy Sensor Readings using Elite Genetic Algorithms, *Artificial Intelligence*, **84(1-2)**, July 1996, pp. 339-354.
- 15. S. Kundu, J. Chen, A New Class of Theories for which the Circumscription can be Obtained via Predicate Completion, *Journal of Experimental and Theoretical AI*, 8(1996), pp. 191-205.
- 14. V. Goel, J. Chen, An Expert Network Approach to Material Selection in Engineering Design, To appear: *Computers in Industry*.
- 13. J. Chen, S. Kundu, The Strong Semantics for Logic Programs, *Journal of Intelligent Information Systems*, 5(1995), pp. 51-68.
- 12. J. Chen, Relating Only Knowing to Minimal Knowledge and Negation as Failure, *Journal of Experimental and Theoretical Artificial Intelligence*, 6(1994), pp. 409-429.
- 11. J. Chen, A Refi ned Semantics for Disjunctive Logic Programs, *Methods of Logic in Computer Science*, Vol. 1, No. 4, 1994, pp. 463-480.
- 10. J. Chen, The Logic of Only Knowing as a Unifi ed Framework for Non-monotonic Reasoning, *Fundamenta Informatica*, Vol. 21, No. 3, Sept. 1994, pp. 205-220.
- 9. J. Chen, On the Relationship between Circumscription and Well-founded Semantics of Logic Programs, *Methods of Logic in Computer Science*, Vol. 1, No. 3, 1994, pp. 339-354.
- 8. O.N. Garcia, R.A. Perez, B.G. Silverman, J. Chen et. al, On Teaching AI and Expert System Courses, *IEEE Transactions on Education*, Vol. 36, No. 1, Feb, 1993, pp. 193-197.
- 7. Seminormal Default Theories and Their Extensions, *Journal of Experimental and Theoretical Artificial Intelligence*, (1) 1992, pp. 351-363.
- 6. W. Wang, J. Chen, Learning by Discovering Problem Solving Heuristics through Experience, *IEEE Transactions on Knowledge and Data Engineering*, (4) Vol 3, Dec. 1991, pp. 415-420.
- 5. S-Q. Zheng, K.H. Kwon, J. Chen, Finding a Shortest Path in Twisted Hypercubes, *Congressus Numerantium* Journal, Vol 83, 1991, pp. 75-90.

- 4. J. Chen, A New Algorithm to Separate Real Roots of Polynomials. *The Chinese Computer Journal*, 12, 1988, pp. 725-731.
- 3. X. Wang, J. Chen, On Vincent's Theorem, Advances in Mathematics, (1) Vol. 17, 1988. pp. 97-98.
- 2. L. Xu, J. Chen, The Automatic Establishment of the Knowledge base for Geometry Theorem Proving, *Journal of Computer Research and Development*, 9, 1987.
- 1. J. Chen, Computer Symbolic Integration System INTG, *Journal of Computer Research and Development*, 6, 1987.

#### **Refereed Conference Publications (Most Recent First).**

- 57. J. Punuru and J. Chen. Extraction of Non-hierarchical Relations from Domain Texts. *Proceedings of IEEE International Conference on Computational Intelligence and Data Mining*, April 2007.
- 56. W. Ju, N. Lam and J. Chen. Application of Kohonen Self-Organizing Map for Urban Structure Analysis. *Proceedings of the IEEE Int. Conf. on Granular Computing*, Atlanta, GA, May 2006.
- 55. J.R. Punuru and J. Chen. Automatic Acquisition of Concepts from Domain Texts. *Proceedings of the IEEE Int. Conf. on Granular Computing*, Atlanta, GA, May 2006.
- G. Ding, R. Lax, P. Chen and J. Chen. Asymptotic Behavior of Linear Approximations of Pseudo-Boolean Functions. Proceedings of Taiwan Association for Artificial Intelligence International Conference. Taiwan, December, 2005.
- R. Lax, G. Ding, P. Chen and J. Chen. Approximating Pseudo-Boolean Functions in Non-Uniform Domains. *Proceedings of International Joint Conference on Artifi cial Intelligence*, Scotland, August 2005.
- 52. J. Chen, M. Rasoulian, Z. Zhang and L. Huang. *Fuzzy Clustering for Back-Calculation of Pavement Parameters*. Proceedings of the 5th International Conference of Chinese Transportation Professionals. June 2005, Xi'An, China.
- 51. Y. Chen, J. Chen, S. Vuppala, A. Gider, B. Zhang and W. Gao. Developing Fabric Sourcing Database. *Proceedings of the Textile Institute 84th Annual World Conference*. Raleigh, North Carolina, March 2005.
- 50. G. Ding, J. Chen, R. Lax, P. Chen. Efficient Learning of Pseudo-Boolean Functions from Limited Training Data. *Lecture Notes in Computer Science, Vol. 3488(2005), Proceedings of International Symposium on Methodologies for Intelligent Systems*, Saratoga Springs, NY, May 2005. pp. 323-331.
- 49 L. Moscovich, J. Chen. Learning Hidden Markov Models using the State Distribution Oracle. *Proceedings of Int. Conference on Machine Learning and Applications*, Louisville, KY, Dec. 2004.
- 48. L. Moscovich, J. Chen. Supervised hidden markov model learning using the state distribution oracle. *Proceedings of IEEE Int. Conference on Cybernetics and Intelligent Systems*, Singapore, Dec. 2004.
- 47. J. Chen, P. Chen, G. Ding, R. Lax. A New Method for Learning Pseudo-Boolean Functions with Applications in Terrorists Profi ling, *Proceedings of IEEE Int. Conference on Cybernetics and Intelligent Systems*, Singapore, Dec. 2004.
- 46. J. Chen, J. Chen, G.P. Kemp, Fuzzy Clustering and Decision Tree Learning for Time-series Tidal Data Classifi cation. *Proceedings of FUZZ-IEEE2003*, May 2003, St. Louis.
- 45. J. Chen, Y. Chen, B. Zhang, A. Gider, S. Vuppala. Online Fabric Database with Intelligent Search and Fuzzy Clustering. *Proceedings of International Conference on Knowledge Sharing*, Scottsdale, AZ, Nov. 2003.
- 44. B. Zhang, Y. Chen, S. Pawlowski, J. Chen and Y. Chen. Online Data Mining in Franchising Supply Chain Management: A Demonstration in the Apparel Industry. *Proceedings of the 2003 Americas Conf. on Information Systems*, Tampa, FL, Aug. 2003.
- 43. P. McDowell, J. Chen, B. Bourgeois, UUVS, Control from a Biological Perspective, Proceedings of Oceans MT/IEEE Conference, Biloxis MS, Oct. 2002, pp. 331-337.

- 42. J. Chen, Y. Chen, B. Zhang, A. Gider, Fuzzy Linear Clustering for Fabric Selection from Online Database, *Proceedings of NAFIPS-FLINT 2002 Int. Conference*, New Orleans June 2002.
- 41. M.J. Martin-Bautists, M.A. Vila, D.H. Kraft, J. Chen, User Profiles in Web Retrieval, *Proceedings of 2001 Bisc International Workshop on Fuzzy Logic and the Internet*, Berkeley, CA, August 2001.
- 40. D. Kraft, J. Chen, Integrating and Extending Fuzzy Clustering and Inference to Improve Text Retrieval Performance, *Proceedings of Flexible Query Answering Systems (FQAS2000)*, Warsaw, Poland, October 2000.
- 39. J. Chen, Combining Description Logic and Stratifi ed Logic Programs in Knowledge Representation, Proceedings of the 12th International Symposium on Methodologies for Intelligent Systems (IMSIS'2000), Charlotte, NC, October 2000.
- 38. D. Kraft, J. Chen, A. Mikulcic, Combining Fuzzy Clustering and Fuzzy Inferencing in Information Retrieval, *Proceedings of FUZZ-IEEE'2000*, San Antonio, TX, May 2000.
- J. Chen, A Class of Stratified Programs in Autoepistemic Logic of Knowledge and Belief, Proceedings of the 11th International Symposium on Methodologies for Intelligent Systems (IMSIS'99), Warsaw, Poland, June 1999.
- 36. W. Liao, J. Chen and E. Triantaphyllou, Data Mining Applications in Industrial Engineering: A Perspective, *Proceedings of 25th International Conference on Computers and Industrial Engineering*, New Orleans, March 1999.
- S. Kundu, J. Chen, Learning Rules from Numerical Data by Combining Geometric and Graph Theoretic Approach, *Proceedings of International Symposium on Intelligent Manufacturing Systems*, Turkey, 1998.
- 34. J. Chen, Embedding Prioritized Circumscription in Logic Programs, *Proceedings of the 10th International Symposium on Methodologies for Intelligent Systems (IMSIS'97)*, Charlotte, NC, Oct. 1997.
- 33. E. Mertooetomo, J. Chen Character Recognition with Fuzzy Features and Fuzzy Regions, *Proceedings of NAFIPS*'97, Sept. 1997.
- 32. A. Mikulcic, J. Chen, Experiments on Application of Fuzzy Clustering in Fuzzy System Design, *Proceedings of FUZZ'IEEE 1996*, New Orleans, LA, September 1996.
- 31. S. Kundu, J. Chen, Design of a Heuristic Fuzzy Controller, *Proceedings of FUZZ'IEEE 1996*, New Orleans, LA, September 1996.
- 30. J. Chen, S. Kundu, Fuzzy Control System Design by Fuzzy Clustering and Self-Organization, *Proceedings of NAFIPS'96 Conference*, Berkeley, CA, June 1996.
- 29. J. Chen, S. Kundu, A Sound and Complete Fuzzy Logic System using Zadeh's Implication Operator, *Proceedings of the 9th Internation Symposium on Methodologies for Intelligent Systems (ISMIS'96)*, Poland, June 1996, LNAI 1079, pp. 233-242.
- 28. J. Sabharwal, J. Chen, Intelligent pH Control Using Fuzzy Linear Invariant Clustering, *Proceedings* of Southeastern IEEE Symposium on Systems Theory, Baton Rouge, April 1996, pp. 514-518.
- 27. N. Mada, J. Chen and S.K. MacGregor, ALAN: A Multimedia Intelligent Tutoring System, *Proceedings of the 4th Golden West International Conference on Intelligent Systems*, San Francisco, CA, June 1995, pp. 274-278.
- 26. S. Kundu, J. Chen, Problems with The Defuzzifi cation Method and A New Representation Using Lukasiewicz Logic: Part I, *Proceedings of FUZZ-IEEE/IFS'95*, Yokohama, Japan, March 1995. A short version appeared in *Proceedings of the 3rd Annual Internation Conference on Fuzzy Theory and Technology*, November 1994.
- 25. S. Kundu, J. Chen, Fuzzy Linear Invariant Clustering with Applications in Fuzzy Control, *Proceedings of NAFIPS/IFIS/NASA-94 Conference*, San Antonio, TX, December 1994.
- J. Chen, The Generalized Logic of Only Knowing That Covers the Notion of Epistemic Specifications, *Proceedings of the 8th International Symposium on Methodologies for Intelligent Systems*, Charlotte, NC, Oct. 1994, pp. 478-487.

- 23. S. Kundu, J. Chen, Fuzzy Logic or Lukasiewicz Logic: A Clarifi cation, *Proceedings of the 8th Inter*national Symposium on Methodologies for Intelligent Systems, Charlotte, NC, Oct. 1994, pp. 56-64.
- 22. V. Goel, J. Chen, An Expert Network Approach to Material Selection in Engineering Design, *Proceedings of the International Symposium on Integrating Knowledge and Neural Heuristics*, Pensacola, FL, May 1994, pp. 206-215.
- 21. J. Chen, Inductive Learning of Stratifi ed Logic Programs via Non-monotonic Inference. *Proceedings* of the 1994 Florida Artifi cial Intelligence Research Symposium, Pensacola, FL, May 1994, pp. 81-85.
- 20. J. Chen, Application of Boolean Expression Minimization to Learning via Hierarchical Generalizations, *Proceedings of the 1994 Symposium on Applied Computing (SAC'94)*, Phoenix, AZ, March 1994, pp. 303-307.
- 19. J. Chen, Minimal Knowledge + Negation as Failure = Only Knowing (Sometimes), *Proceedings of the 2nd International Workshop on Logic Programming and Nonmonotonic Reasoning*, Portugal, June 1993, pp. 132-150.
- J. Chen, The Logic of Only Knowing as a Unified Framework for Non-monotonic Reasoning, Proceedings of the 7th International Symposium on Methodologies for Intelligent Systems (ISMIS'93), Norway, June 1993.
- 17. J. Chen, A Refi ned Semantics for Disjunctive Logic Programs, *Proceedings of the European Conference on Artifi cial Intelligence (ECAI'92)*).
- 16. J. Chen, On the Relationship between Circumscription and Well-founded Semantics of Logic Programs, *Proceedings of the 1992 Symposium on Applied Computing*, March 1992, pp. 554-562).
- 15. S. Kundu, J. Chen, A New Method of Circumscribing Beliefs: the Propositional Case, *Proceedings of the Pacifi c Rim International Conference on AI (PRICAI'92).*
- 14. J. Chen, The BLM Semantics may be Inconsistent, *Proceedings of the 30th Annual ACM Southeastern Conference*, Raleigh, NC, April 1992.
- M. Sharma, J. Chen, S.S. Iyengar, Distributed Algorithms for Locating Centers and Medians in Communication Networks, *Proceedings of the 1992 Symposium on Applied Computing*, March 1992, pp. 808-817.
- 12. J. Chen, S. Kundu, The Strong Semantics for Logic Programs, *Proceedings of International Symposium on Methodologies for Intelligent Systems (ISMIS'91)*, Oct. 1991, pp. 490-499.
- 11. W. C. Jung, B. Jones, J. Chen, Optimization of the Decision Tree, *Proceedings of the 3rd International Conference on Tools for Artifi cial Intelligence*, Nov. 1991, pp. 522-523.
- 10. S. Kundu, J. Chen, A New Class of Theories for Which Circumscription is Obtainable via the Predicate Completion, *Proceedings of the Pacifi c Rim International Conference on Artifi cial Intelligence*, Nov., 1990.
- 9. The Orderedness and Extensions of a Semi-normal Default Theory, *Proceedings of International Symposium on Methodologies for Intelligent Systems*, (ISMIS'90), Oct., 1990, pp. 490-497.
- 8. S. Kundu, J. Chen, A New and Simple Method for Explicit Computation of A Circumscription, *Proceedings of the 14th German Workshop on Artificial Intelligence*, Sep. 14, 1990. (A short version appears in *Proceedings of International Symposium on Methodologies for Intelligent Systems, ISMIS'90*), Oct., 1990, pp. 522-529.
- 7. W. Wang, S.S. Iyengar, J. Chen, Massively Parallel Approach to Pattern Recognition, *Proceedings of the ninth Annual IEEE International Phoenix Conference on Computers and Communications*, March, 1990.
- 6. S. Kundu, J. Chen, Consistency of Belief-sets in Truth-Maintenance, *Proceedings of International Symposium on Computational Intelligence*, Milan, Italy, 1989.
- 5. S. Kundu, J. Chen, Truth in Truth-maintenance, *Proceedings of International Symposium on Method*ologies for Intelligent Systems, (ISMIS'89), October 12-14, 1989, pp. 468-466.
- 4. Y. Li, J. Chen, A Computer Aided Instruction System ASAC-2, *Proceedings of International Symposium for Young Computer Professionals*, August 21-23, 1989.

- 3. J. Chen, A New Algorithm for the Isolation of Real Roots of Polynomial Equations, *Proc. of 2nd International Conference on Computers and Applications* Beijing, China, 1987, pp. 714-719.
- 2. L. Xu, J. Chen, AUTOBASE: A System Which Automatically Establishes the Geometry Knowledge Base, *Proc. of International Conference on Computer Aided Technologies*, Montreal, Canada, 1985, pp. 708-714.
- 1. L. Xu, J. Chen, L. Yang, Solving the Plane Geometry Problem by Learning, *Proc. of 1st International Conference on Computers and Applications*, Beijing, China, 1984, pp. 862-869.

#### **Grants and Contracts**

- 1. Co-PI, Request for Hardware Enhancement for High Performance Data Mining and Knowledge Discovery Lab in the Computer Science Department of LSU, Louisiana Board of Regents, \$92, 391, July 2006 - June 2007.
- 2. Co-PI, ITR Medium: Research on Profi ling Problems in Cyber Security and Anti-terrorism. National Science Foundation, \$1.8 Million, June 2003 June 2008.
- 3. PI, Development of Satellite Mission Scheduling Algorithm. South Korea Electronics and telecommunications research Institute, \$16,000. August 2004 - December 2004.
- 4. Co-PI, Development and Pilot testing of an Elementary School Body Mass Index Report Card, LSU Council on Research, \$20,471. January 2004 June 2004.
- 5. Co-PI, Online Fabric Sourcing Database with Intelligent Search and Data Mining. LEQSF, \$119,000, June 2001 June 2005.
- 6. Principal Investigator, Fuzzy Clustering Techniques for Back-calculation of Pavement Parameters, Louisiana Transportation Research Center, July 1, 1999 June 30, 2000, \$19,850.
- 7. Principal Investigator, Developing Advanced Techniques for Interactive Machine Learning, National Science Foundation, Aug. 1, 1994 July 31, 1995, \$18, 000.
- 8. Principal Investigator, A Knowledge Representation Framework based on the Generalized Logic of Only Knowing, LEQSF, Nov. 1, 1995 June 30, 1997, \$38,000.
- 9. Principal Investigator, Summer Faculty Research Grant from University Council on Research, Louisiana State University, 1990 Summer, \$4,000.

#### **Other Professional Activities**

- 1. Panelist, NSF proposal evaluation panel for the CISE/IRIS program (1993, 1996, 1998, 1999 and 2001).
- 2. Invited Speaker,
  - Research on Satellite Mission Scheduling Algorithm, South Korea Electronics and telecommunication Research Institute, December 2004.
  - Research on Fuzzy Logic and Fuzzy Systems, University of Houston, February 1995.
  - Research on Non-monotonic Reasoning, at George Washington University, Sept. 1993.
- 3. Speaker, a number of Computer Science and AI conferences.
- 4. Reviewer for
  - Journal of Logic and Computation
  - Journal of Intelligent Information Systems
  - IEEE Transactions on Knowledge and Data Engineering
  - IEEE Transactions on Fuzzy Systems
  - Journal of Theoretical and Experimental AI
- 5. Reviewer for proposals:
  - National Science Foundation Research Grants
  - Kentucky Science and Technology Foundation Research Grants
  - Arkansas Science and Technology Authority Research Grants
- 6. Program Committee Member,
  - The 12th and 13th Int. Symp. on Methodologies for Intelligent Systems, 2000 and 2002;

- Int. Conference on Fuzzy Sets and Systems (FUZZ-IEEE) 2003;
- Int. Conf. on Processing and Management of Uncertainty, 2004.
- IEEE Int. Conf. on Granular Computing, May 2006.
- 7. Publication Chair, The 2002 Int. Conf. of North America Fuzzy Information Processing Society, June 2002.
- 8. Technical Session Chair, 1994 Florida Artificial Intelligence Research Symposium, Pensacola, FL, May 1994;

The 8th Int. Symp. on Methodologies for Intelligent Systems, Charlotte, NC, Oct. 1994. The 9th Int. Symp. on Methodologies for Intelligent Systems, Zakopane, Poland, June 1996. The 10th Int. Symp. on Methodologies for Intelligent Systems, Charlotte, NC, Oct. 1997. The IEEE Int. Conference on Fuzzy Systems, New Orleans, LA, September 1996. The NAFIPS-FLINT International Conference, June 2002.

# **Professional Affiliations**

Member of Association for Computing Machinery (ACM) and Special Interested Groups SIGART, SIGMOD. Member of IEEE Computer Society. Member of American Association for Artificial Intelligence (AAAI). Member of North America Fuzzy Information Processing Society (NAFIPS)

## Graduate Students Supervision Ph.D. Dissertations Supervised

- Janardhana R. Punuru. Dissertation Title: "Knowledge-based Methods for Automatic Extraction of Domain-Specific Ontologies". December 2006.
- Luis Moscovich. Dissertation title: "Learning Discrete Hidden Markov Models from State Distribution Vectors". May 2005.
- Kevin P. Grant. Dissertation title: "Machine Learning Techniques for Efficient Query Processing in Knowledge Base Systems". December 2003.

# M.S. projects in Systems Science supervised: 100+

These M.S. projects have developed software systems that cover a wide spectrum of Information Technology applications, including, for example, Web-based data mining softwares for medical diagnosis and disease prevention; Simulation of hydro-dynamic systems for hurricane modeling and prediction; Web-based intelligent tutoring system for the database course; Web-based intelligent search engine for a fabric database; Online graduate student forms; Database and Data Mining applications; Visualization software for Coastal data; etc. Due to the system design and programming skills gained through the projects, my students have been employed by prestigious companies such as Oracle, Lucent Technologies, Verizon, etc. Some of the M.S. project/thesis works have been published in outstanding CS conference proceedings (such as Fuzz-IEEE).