

CURRICULUM VITA

August, 2008

NAME: Walter D. Potter

ADDRESS: Department of Computer Science
115 GSRC
University of Georgia
Athens, GA 30602-7404
(706) 542-0361

EDUCATION:

Ph.D.	University of South Carolina	Computer Science	1987
MS	University of South Carolina	Computer Science	1981
BS	University of Tennessee	Business Administration	1974

CURRENT RESEARCH & INTERESTS:

Intelligent Information Systems; Databases, Data Models, and Knowledge Models; Artificial Intelligence, Heuristic Search Techniques, and Genetic Algorithms; Theoretical Computer Science with focus on Sorting; Expert Database Systems; and Interoperability

POSITIONS:

4/87 - present:	Professor (promoted 2001) in the Department of Computer Science, and Director (appointed 2003) of the AI Center, University of Georgia, Athens, Georgia.
9/86 - 4/87	Graduate Assistant, Department of Computer Science, University of South Carolina
9/83 - 9/84	Graduate Assistant, Department of Computer Science, University of South Carolina
1/82 - 8/83	Software Development Manager, South Carolina Department of Mental Retardation.
1/80 - 12/81	Graduate Assistant, Department of Computer Science, University of South Carolina
5/79 - 1/80	Programmer Analyst (South Carolina)
9/74 - 5/79	Programmer Analyst (Virginia)

HONORS:

- H.W. Close Graduate Fellowship in Computer Science, 1984-1986
- DOE Faculty Research Fellowship, Oak Ridge National Laboratory, 1989
- Best paper Award, 23rd Annual Simulation Symposium, 1990
- Army Faculty Research Fellowship, Army Research Institute, 1991
- Best Paper Honorable Mention, 12th IEEE Symposium On Computer Based Medical Systems, 1999
- USDA Forest Service Merit Award, USDA Southern Research Station, 1999
- Best Paper Award, 13th Int. Conf. Industrial & Engineering Applications of Artificial Intelligence and Expert Systems, IEA/AIE'2000
- General Sandy Beaver Excellence in Teaching Award, 2008

RECENT GRANTS RECEIVED:

1. W.D. Potter, James W. Smith, L.O. Ely, "Internet and Computer Technology for Transfer of Information to Dairy Producers", \$212,358, USDA Fund for Rural America, May 1, 1998 - May 1, 2001.
2. D. Nute and W.D. Potter, "Assessing the Impacts of Timber Harvesting on Soil Nitrogen Capital: An Analysis of Sustainable, Long-Term Productivity," \$34,000, 9/98 - 8/00, USDA Forest Service.
3. D. Nute and W.D. Potter, "Multi-Criterial Decision Support for Forest Management," \$165,577, 9/98 - 5/99, USDA Forest Service.

4. D. Nute and W.D. Potter, "Multi-Criterial Decision Support for Forest Management," \$30,960, funding extension awarded 9/98 – 8/01, USDA Forest Service.
5. W.D. Potter, "SAGA: Spray Advisor Parameter Setting Using the Genetic Algorithm", \$26,752, 9/98 – 5/99, USDA Forest Service.
6. W.D. Potter, NED-1a: An Intelligent Information System, Phase 1: Model Management", \$17,000, 5/98 – 8/99, USDA Forest Service.
7. Potter, W.D., "NED-IIS: An Intelligent Information System for Forest Ecosystem Management," \$22,500, 9/99 – 12/00, USDA Forest Service.
8. Potter, W.D., "SAGA: Spray Advisor Genetic Algorithm Extension," \$44,700, 8/99 – 12/00, USDA Forest Service
9. Potter, W.D., "SAGA-STP Aerial Spray Treatment Planner", USDA Forest Service, \$35,000. 8/2000 – 12/2002.
10. Twery, M., M. Rauscher, D. Nute, and W.D. Potter, "NED: A Practical Decision Support System for Ecological Management of Forests," \$395,849, USDA-CSREES, 1/2001 – 12/2003.
11. Nute, D.E. and W.D. Potter, "Assessing the Impacts of Timber Harvesting on Soil Nitrogen Capital: An Analysis of Sustainable, Long-Term Productivity," extension to existing grant with the USDA Forest Service, \$2500.
12. D. Nute and W.D. Potter, "NED: A Practical Decision Support System", USDA Forest Service, 1/2001 – 12/2003.
13. Potter, W.D., "SAGA: Spray Advisor Genetic Algorithm Extension," \$2,000, 8/99 – 6/02, USDA Forest Service.
14. Potter, W.D., "SAGA-STP Aerial Spray Treatment Planner, Extension", USDA Forest Service, \$20,600, 7/2001 – 8/2002.
15. D. Nute and W.D. Potter, "Fire Risk Analysis and Assessment Goals for NED," \$65,995, USDA Forest Service, 12/2001 – 12/2004.
16. W.D. Potter, "SAGA3: Spray Advisor GA Parameter Setting Analysis," \$37,000, USDA Forest Service, 8/2003 – 9/2004.
17. D. Nute and W.D. Potter, "Expanding NED Capabilities: Adding Visualization, Prescription, and Additional Growth Models," \$34,000, USDA Forest Service, 7/2004 – 12/2006.
18. D. Nute and W.D. Potter, "Expanding NED Capabilities: Adding Stand Regeneration," \$30,912, USDA Forest Service, 1/2005 – 12/2007.
19. W.D. Potter, "STP-ET: Spray Treatment Planning Using Evolutionary Techniques," \$15,000, USDA, Forest Service, 5/1/2005-5/31/2006.
20. Nute, D., and W.D. Potter, "Expanding NED-2 Capabilities: Regeneration, Economics, Southern Wildlife Management," USDA Forest Service, \$65,000, (awarded, June 2006).
21. W.D. Potter and M. Hybinette, "Personal Robotics in Education: IPRE Curriculum Trials," \$50,000 Microsoft Research Gift, Georgia Tech Institute for Personal Robots in Education, June 2008 – September 2009.

RECENT INTERNAL GRANTS RECEIVED:

1. W. Potter, UGA Office of Instructional Support and Development: Learning Technologies Grant Program, "Artificial Intelligence In Action: An Introduction to Robotics," \$32,170, Fall 2001.
2. W. Potter, UGA Office of Instructional Support and Development: Learning Technologies Grant Program, "Artificial Intelligence In Action: An Introduction to Robotics – Phase 2," \$34,550, 2002/2003.
3. Deligiannidis, L., and W.D. Potter, "Enriching CSCI-1302: Controlling External Hardware Devices Using Java," UGA LTG program, \$6,548, 2004/2005.
4. W. Potter, UGA Faculty of Engineering Grant Program, "Enhancing Robotics," \$1,300, 2005.
5. W. D. Potter and C. N. Thai (Co-PI's), "A Synergistic Instructional Approach for Optomechatronics and Robotics," UGA Learning Technologies Grant Program, FY'08/'09, \$19,394, awarded 12/2007

SELECTED PROFESSIONAL ACTIVITIES:

- Regional Editor, International Journal of Hybrid Intelligent Systems, since 2003.
- Associate Editor, Journal of Intelligent and Fuzzy Systems, since 2003.

- Associate Editor, IEEE Transactions on Systems, Man, and Cybernetics, 2001-2003.
- Program Committee Member, The Tenth International Conference on Control, Automation, Robotics and Vision (ICARCV 2008), 7-10 December 2008, Vietnam.
- Reviewer, 2008 International Conference on Genetic and Evolutionary Methods, GEM'08, July, Nevada.
- Program Committee Member, International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems, (IEA/AIE'2008), June, 2008; Poland.
- Program Committee Member, The 12th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2008 held Jointly with The 14th International Conference on Information Systems Analysis and Synthesis: ISAS 2008, June 29th - July 2nd, 2008 – Orlando, Florida, USA
- Reviewer for The 10th International Conference on Control, Automation, Robotics and Vision, ICARCV 2008, held in Hanoi, Vietnam, 17 - 20 December 2008.
- Program Committee Member, International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems, (IEA/AIE'2007), June, 2007; Japan.
- Program Committee Member, 4th Indian International Conference on Artificial Intelligence (IICAI'2007), June, 2007, India.
- Program Committee Member, International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems, (IEA/AIE'2006), June, 2006; France.
- Program Committee Member, International Multi-Conference on Systems, Cybernetics and Informatics (WMSCI'2006), Orlando, Florida, July 2006.
- External dissertation reviewer: Swinburne University of Technology, Victoria, Australia, 2006.
- Program Committee Member, International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems, (IEA/AIE'2005), June, 2005; Italy.
- Program Committee Member, International Conference on Knowledge Based Computer Systems, 2004, India
- Program Committee Member, International Conference on Informatics in Control, Automation, and Robotics, August, 2004, Portugal.
- Program Committee Member, International Conference on Artificial Intelligence (IC-AI'2004), June, 2004, Las Vegas, Nevada.
- Program Committee Member, 2nd Indian International Conference on Artificial Intelligence (IICAI'2005), December, 2005, India.
- Program Committee Member, International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems, (IEA/AIE'2003), June, 2003; UK.
- Program Committee Member and Robotics Competition Chairman, International Conference on Artificial Intelligence (IC-AI'2003), June, 2003, Las Vegas, Nevada.
- Program Committee Member, Genetic and Evolutionary Computation Conference (GECCO-2003), July, 2003, Chicago, Illinois.
- Program Committee Member, Southeastern Regional ACM Conference, (SEACM'2003), March, 2003, Savannah, Georgia.
- Program Committee Member, International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems, (IEA/AIE'2002), June, 2002; Australia.
- Program Committee Member, Genetic and Evolutionary Computation Conference (GECCO-2002), July, 2002, New York.
- Program Committee Member, International Conference on Artificial Intelligence (IC-AI'2002), June, 2002, Las Vegas, Nevada.

Referee/Reviewer for:

- IEEE Computer
- IEEE Concurrency
- Australian Research Council
- Information Science Journal, special issue on Parallel and Distributed Processing Techniques and Applications
- National Science Foundation
- IEEE COMPUTER, J.T. Butler, Editor
- IEEE EXPERT, special series on object-orientation in AI

- IEEE Trans. on Knowledge & Data Engineering, D. Spooner, Editor
- IEEE Trans. on Systems, Man, & Cybernetics, J. Bezdek, Editor
- Int. J. of Approximate Reasoning, J. Bezdek, Editor
- Int. J. of Applied Intelligence, M. Ali, Editor
- Int. J. of Computer Simulation, J. Miller, Guest Editor
- ACM Trans. on Database Systems, G. Wiederhold, Editor
- Int. J. of Man-Machine Studies, J. Bezdek, Guest Editor
- Data & Knowledge Engineering Journal, P. Chen, Editor
- Expert Systems with Applications, Special Issue, J. Leibowitz, Editor
- Pattern Recognition Letters
- Int. J. of Production Research on AI in Mfg., Special Issue
- AI Textbook Review for Benjamin-Cummings Publishing Company
- AI Textbook Review for Prentice-Hall Publishing Company
- Prentice-Hall textbook review for “JAVA: An Introduction to Computing” by Adams, Nyhoff, and Nyhoff.

TEACHING EXPERIENCE:

Data Structures, Knowledge-Based Systems, Database Management I and II, Advanced Data Modeling, Introduction to Computing, Discrete Mathematics, Computer Architecture, Genetic Algorithms, Artificial Intelligence, Program Project Design, Introduction to Robotics, Automata Theory, Computational Intelligence, Computer Networking, and Symbolic Programming.

RECENT REFEREED INTERNATIONAL JOURNAL PUBLICATIONS:

1. N. Roy, W.D. Potter, D. Landau, “Polymer Property Prediction and Optimization Using Neural Networks”, in *IEEE Transactions on Neural Networks*, Vol. 17, No. 4, pp. 1001-1014, July, 2006.
2. D. Casella and W.D. Potter, “Improving Genetic Algorithms Through Custom Hybridization”, in *Transactions on Information Science and Applications*, Issue 1, Volume 3, pp. 48-55, 2005.
3. H. Fischer and W.D. Potter, “Mobile Decision Support for Purchase Decisions in Retail Environments”, in *Transactions on Information Science and Applications*, Issue 1, Volume 3, pp. 119-126, 2005.
4. S. Radhakrishnan and W.D. Potter, “Basic Math via Character Recognition on the AIBO Robot Dog”, in *Transactions on Information Science and Applications*, Issue 1, Volume 3, pp. 127-132, 2005.
5. T.K. Hamrita, W.D. Potter, and B. Bishop, “Robotics, Microcontroller, and Embedded Systems Education Initiatives at the University of Georgia: An Interdisciplinary Approach”, in the *International Journal of Engineering Education*, vol. 21:4, pp. 730-738, 2005.
6. M. Twery, P.D. Knopp, S.A. Thomasma, H.M. Rauscher, D. Nute, W.D. Potter, F. Maier, J. Wang, M. Dass, H. Uchiyama, A. Glende, and R.E. Hoffman, “NED-2: A Decision Support System for Integrated Forest Ecosystem Management”, in *Computers and Electronics in Agriculture*, Vol. 49, pp. 24-43, 2005.
7. D. Nute, W.D. Potter, Z. Cheng, M. Dass, A. Glende, F. Maier, C. Routh, H. Uchiyama, J. Wang, S. Witzig, M. Twery, P.D. Knopp, S.A. Thomasma, and H.M. Rauscher, “A Method for Integrating Multiple Components in a Decision Support System”, in *Computers and Electronics in Agriculture*, vol. 49, pp. 44-59, 2005.
8. N. Roy, W.D. Potter, D. Landau, “Designing Polymer Blends Using Neural Networks, Genetic Algorithms, and Markov Chains”, in *Applied Intelligence: The International Journal of Artificial Intelligence, Neural Networks, and Complex Problem Solving Technologies*, Vol. 20, pp. 215-229, 2004.
9. L. Wu, W.D. Potter, K. Rasheed, J. Ghent, D. Twardus, H. Thistle, and M. Teske, “Nature Inspired Heuristics in Aerial Spray Deposition Management”, in the *Journal of Applied Systems Studies* (special issue on Real Life Applications of Nature Inspired Combinatorial Heuristics), Vol 4, No. 2, 2003.
10. D. Nute, W.D. Potter, F. Maier, J. Wang, M. Twery, H.M. Rauscher, P.D. Knopp, S.A. Thomasma, M. Dass, H. Uchiyama, and Astrid Glende, “NED-2: An Agent-Based Decision Support System for Forest Ecosystem Management,” in *Environmental Modelling and Software*, Vol. 14, No. 5, 2003, Special Issue on Binding Environmental Sciences and Artificial Intelligence, (U. Cortes, M. Marre, Eds.).
11. C.E. Henderson, W.D. Potter, R.W. McClendon, G. Hoogenboom, “Predicting Aflatoxin Contamination in Peanuts: A GA/NN Approach”, *Applied Intelligence: The International Journal of Artificial Intelligence*,

Neural Networks, and Complex Problem Solving Technologies, Vol. 12 No. 3, pp. 183-192, May/June 2000.

12. W. D. Potter, S. Liu, X. Deng, and H.M. Rauscher, "Using DCOM to Support Interoperability in Forest Ecosystem Management Decision Support Systems", *Computers and Electronics in Agriculture*, Vol. 27, Issue 1-3, pp. 335-354, June, 2000.
13. W.D. Potter, X. Deng, M. Xu, Y. Wei, J. Li, I. Lappas, M.J. Twery, and D.J. Bennett, "A Web-Based Expert System for Gypsy Moth Risk Assessment", *Computers and Electronics in Agriculture*, Vol. 27, Issue 1-3, pp. 45-105, June, 2000.

PROCEEDINGS:

1. W.D. Potter, M.M. Matthews, and M. Ali, Editors, *Proceedings of the Tenth International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems*, (IEA/AIE'97), Atlanta, Georgia, June, 1997, Gordon and Breach Science Publishers, 494 pages.
2. H.R. Arabnia, et al, Editors, *Proceedings of the International Conference on Artificial Intelligence*, (IC-AI), 3 volumes, Las Vegas, Nevada, June, 2000.

RECENT REFEREED BOOK CHAPTERS:

1. H. Uchiyama, W.D. Potter, M.A. Covington, J. Tarver, and R. Eunice, "Perceptual Navigation for Semi-Autonomous Wheelchair Operations," invited book chapter in *Service Robot Applications*, I-Tech Education and Publishing KG, Vienna, Austria, Chapter #5, pp. 71-94, 2008
2. W.D. Potter, W. Bi, D. Twardus, H. Thistle, M.J. Twery, J. Ghent, and M. Teske, "Handling the Back Calculation Problem In Aerial Spray Models Using the Genetic Algorithm," book chapter invited for inclusion in *Practical Applications of Soft Computing Techniques*, DeWilde and Jain, eds. Kluwer Publishing Co., pp. 177-222, 2001.
3. H.M. Rauscher and W.D. Potter, "Decision Support for Ecosystem Management and Ecological Assessments", *An Integrated Ecological Assessment Protocols Guidebook*, Bourgeron, P., Jensen, M., and Lessard, G (eds.), Springer-Verlag, New York, 2001.
4. W.D. Potter, S.M. Bhandarkar, and D.J. D'Angelo, "Results from a Variety of Genetic Algorithm Applications Showing the Robustness of the Approach", World Scientific Pub. Singapore, *Soft Computing in Systems and Control Technology*, Ch. 10, pp. 301-326, 1999.

RECENT INTERNATIONAL CONFERENCES:

1. S.V. Fogelson and W.D. Potter, "A Formulation for the Relative Permittivity of Water and Steam to High Temperatures and Pressures Evolved Using Genetic Programming," in *Proceedings of the 2008 Genetic and Evolutionary Computation Conference GECCO 2008*, pp. 1335-1336, July, 2008.
2. H. Uchiyama and W.D. Potter, "Behavior-based Perceptual Navigation for Semi-Autonomous Wheelchair Operations," in the *Proceedings of the 2008 International Conference on Artificial Intelligence ICAI'08*, Las Vegas, Nevada, CD Paper ID: ICA4432, July, 14-17, 2008
3. B.J. Wimpey and W.D. Potter, "Generating Smooth Virtual Reality Maps Using 3D Building Blocks," in the *Proceedings of the 2008 International Conference on Computer Graphics and Virtual Reality CGVR'08*, Las Vegas, Nevada, CD Paper ID: CVG4377, July, 14-17, 2008
4. M. Martin, E. Drucker, and W.D. Potter, "GA, EO, and PSO Applied to the Discrete Network Configuration Problem, in the *Proceedings of the 2008 International Conference on Genetic and Evolutionary Methods GEM'08*, Las Vegas, Nevada, CD Paper ID: GEM3397, July, 14-17, 2008
5. D.R. Tuohy, W.D. Potter and D.A. Casella, "Searching for Snake-in-the-Box Codes with Evolved Pruning Models" in the *Proceedings of the 2007 International Conference on Genetic and Evolutionary Methods, (GEM'07)*, pp. 3-9, Las Vegas, Nevada, June 25-27, 2007.
6. S.V. Fogelson and W.D. Potter, "A GP-evolved Formulation for the Relative Permittivity of Water and Steam", in the *Proceedings of the 2007 International Conference on Genetic and Evolutionary Methods, (GEM'07)*, pp. 75-78, Las Vegas, Nevada, June 25-28, 2007.
7. S.V. Fogelson and W.D. Potter, "A **New** GP-evolved Formulation for the Relative Permittivity of Water and Steam", in the *Proceedings of the International Conference on Artificial Intelligence and Pattern Recognition, AIPR'07*, 8 pages (on proceedings CD), Orlando, Florida, July, 2007.

8. D.R. Tuohy and W.D. Potter, "An Evolved Neural Network/HC Hybrid for Tablature Creation in GA-based Guitar Arranging", in the *Proceedings of the International Computer Music Conference, ICMC'06*, pp. 576-579, New Orleans, LA, November 6-11, 2006.
9. D. Nute, Z. Cheng, A. Lyle, W.D. Potter, M.J. Twery, S.A. Thomasma, and P.D. Knopp, "Managing for Visual Goals in the NED-2 Decision-Support System for Forest Ecosystems," in *Proceedings of the 3rd International Conference on Environmental Modelling and Software*, iEMSs, Proceedings on CD, Session 3: Integrated Models for Prediction, pages: 6, Burlington, Vermont, July 9-12, 2006.
10. D. Nute, J. Bishop, Z. Cheng, W.D. Potter, D. Loftis, M.J. Twery, S.A. Thomasma, and P.D. Knopp, "Interleaving Growth and Regeneration Models in the NED-2 Decision Support System for Forest Ecosystems," in *Proceedings of the 3rd International Conference on Environmental Modelling and Software*, iEMSs, Proceedings on CD, Session 3: Integrated Models for Prediction, pages: 6, Burlington, Vermont, July 9-12, 2006.
11. D. R. Tuohy and W.D. Potter, "Guitar Tablature Creation with Neural Networks and Distributed Genetic Search", in the *Proceedings of the 19th International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems*, IEA/AIE'06, Lecture Notes in Artificial Intelligence-4031, Springer-Verlag, Berlin, pp. 244-253, **Best Session Presentation Award**, Annecy, France, June, 2006.
12. J. Dewey, F. Maier, W.D. Potter, D. Nute, H.M. Rauscher, M.J. Twery, P.D. Knopp, and S.A. Thomasma, "Prescriptive Treatment Optimization Using A Genetic Algorithm", in the *Proceedings of the 3rd International Conference on Environmental Modelling and Software*, iEMSs, Proceedings on CD, Session 4: Optimization in Environmental Modeling, pages: 6, Burlington, Vermont, July 9-12, 2006.
13. D. R. Tuohy and W.D. Potter, "GA-Based Music Arranging for Guitar", in the *2006 IEEE Congress on Evolutionary Computation*, CEC'06, TueMM-11-2, CEC7192, pp. 3810-3815, Vancouver, BC, Canada, July, 2006.
14. D.A. Casella and W.D. Potter, "New Lower Bounds for the Coil-In-The-Box Problem: Using Evolutionary Techniques to Hunt for Coils", in the *Proceedings of the International Conference on Computational Intelligence, Man-Machine Systems, and Cybernetics*, CIMMACS'05, CD Proceedings Paper No. 501-111, Miami, Florida, November 17-19, 2005.
15. S. Radhakrishnan and W.D. Potter, "AIBO Goes to School – Basic Math", in the *Proceedings of the International Conference on Computational Intelligence, Man-Machine Systems, and Cybernetics*, CIMMACS'05, CD Proceedings Paper No. 501-206, Miami, Florida, November 17-19, 2005.
16. H. Fischer and W.D. Potter, "An Intelligent, Mobile Information System to Aid In-Store Purchase Decision Making", in the *Proceedings of the International Conference on Computational Intelligence, Man-Machine Systems, and Cybernetics*, CIMMACS'05, **Best Student Co-Authored/Presented Paper**, CD Proceedings Paper No. 501-197, Miami, Florida, November 17-19, 2005.
17. D.R. Tuohy and W.D. Potter, "A Genetic Algorithm for the Automatic Generation of Playable Guitar Tablature", in the *Proceedings of the International Computer Music Conference*, ICMC'05, pp. 499-502, Barcelona, Spain, September 5-9, 2005.
18. D. Casella and W.D. Potter, "Using Evolutionary Techniques to Hunt for Snakes and Coils," in the *2005 IEEE Congress on Evolutionary Computing*, CEC'05, pp. 2499-2505, Edinburgh, Scotland, September 2-5, 2005.
19. C. Bennett and W.D. Potter, "Sorting Feature Retention and Algorithm Selection Through Input Sampling," in *Proceedings of the 3rd IASC World Conference on Computational Statistics and Data Analysis*, CSDA'05, Limasol, Cyprus, October 28-31, 2005.
20. H. Uchiyama, L. Deligiannidis, W.D. Potter, B.J. Wimpey, D. Barnhard, R. Deng, and S. Radhakrishnan, "A Semi-Autonomous Wheelchair with HelpStar", in the *Proceedings of the 18th Int. Conf. On Industrial & Engineering Applications of Artificial Intelligence and Expert Systems*, IEA/AIE'05, pp. 809-818, Bari, Italy, June, 2005.
21. D. deJuan, V. Khosla, W.D. Potter, B. Dorminey, and D. Nute, "ImmGnosis: A Stateless Web-Based Expert System for Immigration Law," in the *Proceedings of the 2005 International Conference on Artificial Intelligence*, ICAI'05, paper: ICA3104, pp. 1-7 (pp.249-255), Las Vegas, Nevada, June, 2005.
22. L. Deligiannidis, W.D. Potter, B.J. Wimpey, H. Uchiyama, R. Deng, S. Radhakrishnan, and D. Barnhard, "HelpStar Technology for Semi-Autonomous Wheelchairs", in the *Proceedings of the 2005 International Conference on Computers for People with Special Needs*, CPSN'05, paper: CPS3070, pp. 1-7 (pp. 77-83), Las Vegas, Nevada, June, 2005.

23. D.A. Casella and W.D. Potter, "New Lower Bounds for the Snake-In-The-Box Problem: Using Evolutionary Techniques to Hunt for Snakes", in *Proceedings of the 18th International FLAIRS Conference*, pp. 264-269, Clearwater Beach, Florida, May, 2005.
24. N. Suo, K. Rasheed, W.D. Potter, and D.N. Aron, "Machine Learning Techniques for the Evaluation of External Skeletal Fixation Devices", in the *Proceedings of the 2004 International Conference on Mathematics and Engineering Techniques in Medicine and Biological Sciences*, pp. 378-384, Las Vegas, Nevada, June 21-24, 2004.
25. J.T. McClain, B.J. Wimpey, D.H. Barnhard, and W.D. Potter, "Odin and Hodur: Using Bluetooth Communication for Coordinated Robotic Search," in the *Proceedings of the 2004 International Conference on Artificial Intelligence*, pp. 365-371, Las Vegas, Nevada, June 21-24, 2004.
26. J.N. Bishop and W.D. Potter, "Towards Developing Behavior Based Control Architectures for Mobile Robots Using Simulated Behaviors," in the *Proceedings of the 2004 International Conference on Artificial Intelligence*, pp. 575-581, Las Vegas, Nevada, June 21-24, 2004.
27. P.G. Bartley, S.O. Nelson, R.W. McClendon, and W.D. Potter, "Modeling Permittivity Measurement Probes by Using a Genetic Algorithm", in the *Proceedings of the 2004 IEEE Instrumentation and Measurement Technology Conference*, vol. 1, pp. 52-55, Como, Italy, May 18-20, 2004.
28. M. Dass, J. Cannady and W.D.Potter, "A Blackboard-Based Learning Intrusion Detection System: A New Approach" in the *Proceedings of the 16th International Conference on Industrial & Engineering Applications of Artificial Intelligence & Expert Systems*, pp. 385-390, Loughborough, UK, June, 2003.
29. F. Maier, D. Nute, W.D. Potter, J. Wang, M. Twery, M. Rauscher, P. Knopp, S. Thomasma, M. Dass, and H. Uchiyama, "Efficient Integration of PROLOG and Relational Databases in the NED Intelligent Information System," in the *Proceedings of the International Conference on Information and Knowledge Engineering (IKE'03)*, pp. 364-369, Las Vegas, Nevada, June, 2003.
30. M. Twery, H.M. Rauscher, P.D. Knopp, S.A. Thomasma, D. Nute, W.D. Potter, F. Maier, J. Wang, M. Dass, H. Uchiyama, and Astrid Glende, "NED-2: An Integrated Forest Ecosystem Management Decision Support System," in the *CD-Proceedings of the 2003 IUFRO International Conference on Decision Support for Multiple Purpose Forestry*, Vienna, Austria, April, 2003
31. D. Nute, W.D. Potter, F. Maier, J. Wang, M. Twery, H.M. Rauscher, P.D. Knopp, S.A. Thomasma, M. Dass, H. Uchiyama, and Astrid Glende, "An Agent Architecture for an Integrated Forest Ecosystem Management Decision Support System," in the *CD-Proceedings of the 2003 IUFRO International Conference on Decision Support for Multiple Purpose Forestry*, Vienna, Austria, April, 2003.
32. M. Dass, J. Cannady, and W.D. Potter, "LIDS: Learning Intrusion Detection System", in the *Proceedings of the 16th International FLAIRS'03 Conference*, AAAI Press, St. Augustine, Florida, pp. 12-16, May 2003.
33. D. Nute, W.D. Potter, F. Maier, J. Wang, M.J. Twery, H.M. Rauscher, P. Knopp, S. Thomasma, M. Dass, H. Uchiyama, "Intelligent Model Management in a forest Ecosystem Management Decision Support System," in *Integrated Assessment and Decision Support Proceedings of the First Biennial Meeting of the International Environment Modeling and Software Society*, IEMSS, A.E. Rizzoli and A.J. Jakeman (eds), Vol. 3: 396-401, Lugano, Switzerland, June 24-27, 2002
34. W. Potter, D. Nute, J. Wang, F. Maier, M. Twery, M. Rauscher, P. Knopp, S. Thomasma, M. Dass, and H. Uchiyama, "The NED IIS Project - Forest Ecosystem Management," in *Intelligent Information Processing - IFIP 17th World Computer Congress WCC2002 - TC12 Stream on Intelligent Information Processing (IIP-2002)*, M. Musen, B. Neumann, and R. Studer (Eds.), pp. 293-296, Kluwer Academic Publishers.
35. F. Maier, D. Nute, W. Potter, J. Wang, M. Twery, M. Rauscher, P. Knopp, S. Thomasma, M. Dass, and H. Uchiyama, "PROLOG/RDBMS Integration in the NED Intelligent Information System," in the *Confederated International Conferences CoopIS, DOA, and ODBASE 2002 Proceedings (Tenth International Conference on Cooperative Information Systems)*, Meersman, Tari et al. (Eds.), [Lecture Notes in Computer Science 2519, Springer, Berlin], Irvine, California, p.528, October, 2002.
36. L. Wu, W.D. Potter, K. Rasheed, H. Thistle, J. Ghent, D. Twardus, and M. Teske, "A Comparison of Genetic Algorithm Methods in Aerial Spray Deposition Management," in *Proceedings of the Genetic And Evolutionary Computation Conference (GECCO'02)*, p. 1274, New York, NY, July 9-13, 2002
37. H. Thistle, M. Teske, W. Potter, D. Twardus, "The Use of Genetic and Amoeba Algorithms in Combination With A Lagrangian Solver to Simulate Dispersion and Deposition of Droplets in Aircraft Wakes", *Proceedings of the NAFEMS World Congress 2001: The Evolution of Product Simulation*, NAFEMS'2001, Lake Como, Italy, April, 2001.

38. W. Bi, W.D. Potter, D. Twardus, H. Thistle, M.J. Twery, J. Ghent, and M. Teske, "Aerial Spray Optimization," *Proceedings of the International Conference on Artificial Intelligence*, ICAI'2000, pp. 473-480, Las Vegas, June, 2000.
39. W.D. Potter, W. Bi, D. Twardus, H. Thistle, M.J. Twery, J. Ghent, and M. Teske, "A Genetic Algorithm For Aerial Spray Application Optimization," *2000 ASAE Annual International Meeting*, ASAE'2000 paper no: 001053, 20 pages, Milwaukee, Wisconsin, July, 2000.
40. W.D. Potter, D.N. Aron, H. Dale, G. Greene, T. Wang, "Bone-FixEs: An External Skeletal Fixation Expert System", *2000 Int. Conf. On Mathematics and Engineering Techniques in Medicine and Biological Sciences*, METMBS'2000, pp. 337-344, Las Vegas, June, 2000.
41. W.D. Potter, X. Deng, S. Somasekar, S. Liu, H.M. Rauscher, and S. Thomasma, "Forest Ecosystem Management via the NED Intelligent Information System", *Proceedings of the 13th Int. Conf. On Industrial & Engineering Applications of Artificial Intelligence and Expert Systems*, IEA/AIE'2000, pp. 629-638, New Orleans, June, 2000.
42. W.D. Potter, W. Bi, D. Twardus, H. Thistle, M.J. Twery, J. Ghent, and M. Teske, "Aerial Spray Management Using the Genetic Algorithm", *Proceedings of the 13th Int. Conf. On Industrial & Engineering Applications of Artificial Intelligence and Expert Systems*, IEA/AIE'2000, pp. 210-219, New Orleans, June, 2000. **Best Paper Award.**

RECENT NATIONAL/REGIONAL CONFERENCES:

1. H. Uchiyama, M.A. Covington and W.D. Potter, "Vibrotactile Glove Guidance for Semi-Autonomous Wheelchair Operations," in *Proceedings of the 46th ACM Southeast Conference (ACMSE'08)*, Auburn, AL., CD Paper ID: E31R, March, 2008.
2. B.J. Wimpey and W.D. Potter, "RMBL3D: Building Smooth Virtual Reality Maps Using 3D Objects," in *Proceedings of the 46th ACM Southeast Conference (ACMSE'08)*, Auburn, AL., CD Paper ID: E63W, March, 2008.
3. J.T. McClain, B.J. Wimpey, D.H. Barnhard, and W.D. Potter, "Distributed Robotic Target Acquisition Using Bluetooth Communication", in the *Proceedings of the 42nd Annual ACM Southeast Conference*, pp. 291-296, Huntsville, Alabama, April, 2004.
4. Y. Ono, H. Uchiyama, and W.D. Potter, "A Mobile Robot for Corridor Navigation: A Multi-Agent Approach", in *Proceedings of the 42nd Annual ACM Southeast Conference*, pp. 379-384, Huntsville, Alabama, April, 2004.
5. M. Dass, J. Cannady and W.D. Potter, "A GA-Based Intrusion Sub-Classifer Filter" in the *Proceedings of the 41st Annual ACM Southeast Conference*, (proceedings on CD and ACM Digital Library) Savannah, March, 2003.
6. D. Chinthamalla, H. Muthyala, and W.D. Potter, "Information Integration Using the Blackboard Technique," in the *Proceedings of the 40th Annual ACM Southeast Conference*, pp. 39-44, April 26-27, 2002, Raleigh, NC.
7. Wang, J., W.D. Potter, D. Nute, F. Maier, H.M. Rauscher, M.J. Twery, S. Thomasma and P. Knopp, "An Intelligent Information System for Forest Management: NED/FVS Integration," *Proceedings of the 2nd Forest Vegetation Simulator Conference*, Fort Collins, Colorado, 2/02.
8. Wu, L., W.D. Potter, K. Rasheed, J. Ghent, D. Twardus, H. Thistle and M. Teske, "Improving the Genetic Algorithm Performance in Aerial Spray Deposition Management," *Proceedings of the IEEE SECon 2002*, pp. 306-311, April, 2002, Columbia, South Carolina, April 6, 2002.
9. Potter, W.D., J. Li, Ramyaa, J. Ghent, D. Twardus and H. Thistle, "STP: An Aerial Spray Treatment Planning System," *Proceedings of the IEEE SECon 2002*, pp. 300-305, Columbia, SC, April 6, 2002.
10. Rushton, J.N., W.D. Potter, A. Bahuman, J. Li, C. Ramakrishnan, "KublAI: An Intelligent Agent for Microsoft's Age of Kings", *Proceedings of the 39th Annual Southeast ACM Conference*, pp. 241-242, Athens, GA, March, 2001.
11. Ramakrishnan, C., W.D. Potter, S. Chellapilla, J.W. Smith, L.O. Ely, and W.D. Gibson, "Dairy Producer's Assistant: A Web-based Expert System for Dairy Producers", *Proceedings of the 39th Annual Southeast ACM Conference*, pp. 108-111, Athens, GA, March, 2001.

SUBMITTED PUBLICATIONS:

1. W.D. Potter, E. Drucker, P. Bettinger, F. Maier, D. Luper, M. Martin, M. Watkinson, G. Handy, and C. Hayes, "Diagnosis, Configuration, Planning, and Route Finding: Experiments in Nature-Inspired Optimization", submitted to *Nature-Inspired Algorithms for Optimisation*, a book edited by Raymond Chiong, to be published by Springer-Verlag in the series *Studies in Computational Intelligence (SCI)*, 2008.

RECENT OTHER PUBLICATIONS:

ABSTRACTS (reviewed, but not stringently):

1. A.M. Chapa, J.W. Smith, L.O. Ely, M. Nakazawa, C. Ramakrishna, W.D. Potter, "The Interaction of a Web-Based Dairy Expert System and Production Benchmarks," in *2000 ASAS/ADSA Joint Meeting (Federation of Animal Science Societies)*, Feb 2000, p. 386.
2. N. Roy, W. D. Potter, D. P. Landau, "Designing Polymer Blends Using Neural Networks, Genetic Algorithms, and Markov Chains," *April 2000 Meeting of the American Physics Society*, April, 2000.

OTHER PUBLICATIONS:

1. D.R. Tuohy, W.D. Potter and D.A. Casella, "A Hybrid Optimization Method for Discovering Snake-in-the-Box Codes", in the *Proceedings of the First Symposium on Foundations of Computational Intelligence (FOCI'07)*, Honolulu, Hawaii, April 1-5, 2007. (withdrawn due to conference conflict).
2. W.J. Brown and W.D. Potter, "Using Iterated Local Search With Adaptive Memory to Find Snake-In-The-Box Codes," in the *4th Mexican International Conference on Artificial Intelligence, MICAI'05*, Monterrey, Mexico, November 14-18, 2005 (accepted but unable to attend due to budget restrictions; not published).
3. M. Dass, J. Cannady and W.D.Potter, "Quest For The Best ANN Architecture For Misuse Detection" accepted to the *Seventh World Multi-Conference on Systemics, Cybernetics and Informatics*, Orlando, Florida, 2003 (unable to attend due to budget cuts).
4. Potter, W.D., W. Bi, D.B. Twardus, H.W. Thistle, J. Ghent, and M.E. Teske, "Aerial Spray Back Calculation by Genetic Algorithm", *Proceedings of the 2000 Annual Gypsy Moth Review*, National Gypsy Moth Management Board Technical Report, Norfolk, Virginia, October, 2000.
5. M. A. Dirr and W. D. Potter, "The Photo-Library of Woody Landscape Plants on CD-ROM", *Nursery Management and Production*.

SELECTED PUBLICATIONS RESULTING FROM STUDENT PROJECTS:

1. K. Sharma, "Designing Knowledge Based Systems as Complex Adaptive Statements," in *Proceedings of the First Conference on Artificial General Intelligence (AGI-08)*, March, 2008, Memphis, Tennessee. (to appear).
2. D. Boucugnani, D. Barnhard, and D. Caveney, "Phoenix & Dragon: Parallax BoeBot/LEGO Technics Hybrid Solutions to the Reactive Maze Traversal and Deliberative 'Cheese' Location Problems", in *Proceedings of the 40th Annual ACM Southeast Conference*, pp. 229-234, April, 2002, Raleigh, North Carolina. *** **Best Student Paper Award** ***
3. B. Schwartz, J. Pattenauade, C. Wolff, and C. Armbruster, "An Internet-Based Study Group Management System", *Proceedings of the 39th Annual ACM Southeast Conference*, pp. 63-71, Athens, GA, March, 2001
4. B. C. Bridger and C. Groskopf, "Fundamentals of Artificial Intelligence in Games," *Proceedings of the 38th Annual ACM Southeast Conference*, pp. 51-55, April, 2000.

SOFTWARE DEVELOPED:

1. "Michael A. Dirr's Photo-Library of Woody Landscape Plants on CD-ROM", (4 CD-ROM set).
2. "Allan M. Armitage's Photo-Library of Herbaceous Plants on CD-ROM", (4 CD-ROM set).
3. "The Interactive Manual and Photo-Library of Woody Landscape Plants, DVD Version"
4. "Hydrangeas for American Gardens: A Photographic Essay on CD-ROM", by Michael A. Dirr
5. "Viburnums for American Gardens: A Photographic Essay on CD-ROM", by Michael A. Dirr
6. "Magnolias for American Gardens: A Photographic Essay on CD-ROM", by Michael A. Dirr