

# Nancy E. Reed, Ph.D.

Associate Professor

Department of Information and Computer Sciences

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## Education

- Ph.D.** 1995. Computer Science, University of Minnesota, Minneapolis. Title: Diagnosing Multiple Interacting Defects with Cue Combination Descriptions.
- M.S.** 1988. Computer Science. University of Minnesota, Minneapolis. Title: Strategies and Inexact Models in Computer Hardware Diagnosis.
- B.S.** 1977. Biology. University of Minnesota, Minneapolis.

## Professional Experience

[2002-present] **Associate Professor**, 2007-present, Department of Information and Computer Sciences, **Assistant Professor**, 2004-2007, Department of Information and Computer Sciences, **Assistant Professor**, 2002-2004, Department of Electrical Engineering, University of Hawai'i at Manoa. Research in autonomous agents, intelligent systems, biomedical informatics and computational models of expert problem solving methods. Algorithms (ICS311, undergraduate, required), Programming Language Theory (ICS313, undergraduate, required), Artificial Intelligence (ICS467, senior elective), Object-Oriented Software Engineering (EE467, senior elective), Intelligent Autonomous Agents (ICS606/EE606, graduate), and Artificial Intelligence in Biomedical Informatics (graduate) course instruction.

[1998-2004] **Associate Professor** (Docent), 2003-present, **Assistant Professor** 1998-2003, Computer and Information Science Department, Linköping University, Sweden. Research in autonomous agents, interactive simulation environments, knowledge-based systems, and real-time systems. Concurrent Programming and operating Systems, Software Engineering and Data Structures course instruction.

[1994-2002] **Adjunct Assistant Professor** 1996-2002, **Lecturer** 1994-1996, **Researcher** 1995, Computer Science Department, University of California, Davis. Introduction to Computers, Introduction to Software Development, Discrete Mathematics, Data Structures, and Medical Decision-Support Systems (graduate) course instruction. Research on knowledge-based systems including the Remote Technical Assistance (RTA) project.

[1993-1994] **Lecturer**, Computer and Information Science Department, Sonoma State University, Rohnert Park, California. Introduction to Computers laboratory and Artificial Intelligence (senior elective) course instruction.

## Publications

### I. Reviewed Journal Publications

10. Kin Lik Wang, Nancy E. Reed, and Dale S. Vincent. A multi-agent simulation of kidney function for medical education. In R. Paranjape and A. Sadanand, editors, *Multi-Agent Systems for Healthcare Simulation and Modelling: Applications for System Improvement*, chapter 10, pages 178–194. Medical Information Science Reference, IGI Global, Hershey, PA, USA, Aug. 2009.
9. Yan Yang, Raman Paranjape, Luigi Benedicenti, and Nancy Reed. A system model for university course timetabling using mobile agents. *Multiagent and Grid Systems*, 2(3):267 – 275, 2006.
8. T.R. Reed, N.E. Reed, and P. Fritzsson. Heart sound analysis for symptom detection and computer-aided diagnosis. *Journal of Simulation Practice and Theory*, 12:129–146, 2004.
7. Paul Scerri and Nancy E. Reed. Engineering characteristics of autonomous agent architectures. *Journal of Experimental and Theoretical Artificial Intelligence*, 12:191–212, April 2000.
6. Fengyu Zhao and Nancy E. Reed. Cue-weighted diagnosis model for interacting defects and case study in pediatric cardiology (in chinese). *Mini-Micro System*, 21(8):884–887, August 2000.
5. Nancy E. Reed, Maria Gini, Paul E. Johnson, and James H. Moller. Diagnosing congenital heart defects using the fallot computational model. *Artificial Intelligence in Medicine*, 10(1):25–40, 1997.
4. Richard F. Walters and Nancy E. Reed. Outcome analysis of distance learning: A comparison between conventional and independent study instruction. *(On The) Horizon, Integrating Information Technology Tools in Instruction.*, 1996. Also available on CDROM from Microsoft.
3. Nancy E. Reed, Maria Gini, and Paul E. Johnson. Robust strategies for diagnosing manufacturing defects. *Applied Artificial Intelligence*, 10(5):387–406, 1996.
2. Richard F. Walters and Nancy E. Reed. Distance learning, can we use it to teach M programming? *M Computing*, 4(1):20–24, 1996.
1. Nancy E. Reed and Paul E. Johnson. Analysis of expert reasoning in hardware diagnosis. *International Journal of Man-Machine Studies*, 38(2):251–280, 1993.

### II. Reviewed International Conference Publications and Book Chapters

33. Nancy Reed and Todd Reed. Augmented phonocardiogram acquisition and analysis. In Dylan Schmorrow and Cali Fidopiastis, editors, *Foundations of Augmented Cognition. Directing the Future of Adaptive Systems*, volume 6780 of *Lecture Notes in Computer Science*, pages 618–627. Springer Berlin / Heidelberg, 2011. 10.1007/978-3-642-21852-1-71.
32. N.E. Reed, Yanhan Nie, and C.B. Mahnke. A portable graphical representation tool for phonocardiograms. In *Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2009. (EMBC 2009)*, pages 3111–3114, Sept. 2009.
31. Vengfai Raymond U and Nancy E. Reed. Enhancing agent capabilities in a large rescue simulation system. In Nicholas R. Jennings, Milind Tambe, Toru Ishida, and Sarvapali D. Ramchurn, editors, *Proceedings of the First International Workshop on Agent Technology for Disaster Management (ATDM) at the Fifth International Joint Conference on Autonomous Agents and Multi-agent Systems (AAMAS-06)*, pages 71–77, Future University, Hakodate, Japan, May 2006. AAMAS Press.

30. Nancy E. Reed. Supporting adjustable autonomy in agent systems. In P. Ward, M. Crosby, and J. Schultz, editors, *Symposium on Integrating Humans with Intelligent Technologies: Merging Theories of Collaborative Intelligence and Expert Cognition, at the 39th Hawaii International Conference on System Sciences (HICSS-06)*, pages 1–4. <http://www.itl.nist.gov/iaui/vvrg/hicss39/>, Jan 2006.
29. Yan Yang, Raman Paranjape, Luigi Benedicenti, and Nancy Reed. A mobile agent system for university course timetabling. In Bhanu Prasad, editor, *Proc. of the 2nd Indian International Conference on Artificial Intelligence (IICAI-05)*, pages 2926–2937, December 2005. online: DBLP, <http://dblp.uni-trier.de>.
28. Nancy E. Reed and James B. Moen. Integrating problem-solving models in common lisp. In *Proc. of the 2005 International Lisp Conference (ILC 05)*, pages 317–324. ALU Press, Jun 2005.
27. Nancy E. Reed. A user controlled approach to adjustable autonomy. In *Proc. of the 38th Hawaii International Conference on System Sciences (HICSS-05)*, pages 1–10. IEEE Press, Jan 2005.
26. Nancy E. Reed. Online user direction using goal modification. In Cheryl Martin, Jeff Bradshaw, Debra Schreckenghost, and Milind Tambe, editors, *Workshop on Humans and Multi-Agent Systems at the Second International Conference on Agents and Multi-Agent Systems (AAMAS-03)*, pages 73–80. ACM Press, Melbourne, Australia, July 2003.
25. Nancy E. Reed. Autonomous agent systems. In *Proceedings of the 2002 International Lisp Conference (ILC-02)*, Berkeley, CA, 2003. Franz Inc. Invited tutorial.
24. Paul Scerri and Nancy Reed. Making adjustable autonomy easier with teamwork. In Ryszard Kowalczyk, Seng Wai Loke, Nancy Reed, and Graham Williams, editors, *Advances in Artificial Intelligence: PRICAI 2000 Workshop Reader*, volume 2112, pages 339–352. Springer Verlag, Berlin, 2001.
23. K. Suzanne Barber, Cheryl E. Martin, Nancy E. Reed, and David Kortenkamp. Dimensions of adjustable autonomy. In Ryszard Kowalczyk, Seng Wai Loke, Nancy Reed, and Graham Williams, editors, *Advances in Artificial Intelligence: PRICAI 2000 Workshop Reader*, volume 2112, pages 353–361. Springer Verlag, Berlin, 2001.
22. Nancy E. Reed. Teamwork and adjustable autonomy in agents. In Ryszard Kowalczyk, Seng Wai Loke, Nancy Reed, and Graham Williams, editors, *Advances in Artificial Intelligence: PRICAI 2000 Workshop Reader*, volume 2112, pages 301–302. Springer Verlag, Berlin, 2001.
21. Paul Scerri and Nancy E. Reed. Designing agents for systems with adjustable autonomy. In *Workshop on Autonomy, Delegation and Control: Interacting with Autonomous Agents, at the Seventeenth International Joint Conference on Artificial Intelligence (IJCAI-01)*, pages 97–102, August 2001.
20. Todd Reed, Nancy E. Reed, and Peter Fritzon. The analysis of heart sounds for symptom detection and machine-aided diagnosis. In *Proceedings of the 4th International EuroSIMS Congress (EuroSIM 2001)*, pages 038:1–7, June 2001.
19. Paul Scerri, Nancy Reed, Tobias Wiren, Mikael Lönneberg, and Pelle Nilsson. Headless chickens IV. In P. Stone, T. Balch, and G. Kraetschmar, editors, *RoboCup-2000: Robot Soccer World Cup IV*, volume 2019, pages 493–496. Springer Verlag, Berlin, 2001.
18. Todd Reed, Nancy E. Reed, and Peter Fritzon. Model based heart sound analysis for the detection of diagnostically relevant symptoms. In *Proceedings of the 41st SIMS simulation Conference (SIMS-2000)*, pages 73–86, 2000.
17. Paul Scerri and Nancy E. Reed. Online control of agents using EASE: Implementing adjustable autonomy using teams. In Nancy E. Reed, editor, *Teams and Adjustable Autonomy Workshop at the Sixth Pacific Rim International Conference on Artificial Intelligence (PRICAI-2000)*, pages 25–34, August 2000.

16. Paul Scerri, Johan Ydrén, and Nancy E. Reed. Layered specification of intelligent agents. In *Sixth Pacific Rim International Conference on Artificial Intelligence (PRICAI-2000)*, pages 565–575, August 2000.
15. Paul Scerri and Nancy E. Reed. Real-time control of intelligent agents. In Josep Puyol-Gruart, editor, *Technical Summaries of the Software Demonstration Sessions, Fourth International Conference on Autonomous Agents (Agents 2000)*, pages 28–29, June 2000.
14. Paul Scerri and Nancy E. Reed. Creating complex actors with EASE. In C. Sierra, M. Gini, and J. S. Rosenschein, editors, *Fourth International Conference on Autonomous Agents (Agents 2000)*, pages 142–143. ACM Press, June 2000.
13. Nancy E. Reed and Paul Scerri. Adjustable autonomy in simulated pilots. In *Adjustable Autonomy Systems Workshop at the Sixteenth International Joint Conference on Artificial Intelligence (IJCAI-99)*, pages 56–59, August 1999.
12. Paul Scerri and Nancy E. Reed. Requirements for a general agent architecture for agent-based simulation environments. In *Autonomy Control Software Workshop at Third International Conference on Autonomous Agents (Agents-99)*, pages 102–108, May 1999.
11. Paul Scerri and Nancy E. Reed. Adapting an agent to a similar environment. In *Third International Conference on Autonomous Agents (Agents-99)*, pages 420–421. ACM Press, May 1999.
10. Paul Scerri, Nancy E. Reed, and Anders Törne. An approach to directing intelligent agents in real-time. In *Proceedings of the AAAI Spring Symposium on Agents with Adjustable Autonomy*, pages 114–115. AAAI Press, March 1999.
9. Nancy E. Reed. Constructing the correct diagnosis when symptoms disappear. In *Proceedings of the Fifteenth National Conference on Artificial Intelligence (AAAI-98)*, pages 151–156, July 1998.
8. Stephen P. Fonseca and Nancy E. Reed. Integration of an expert teaching assistant with distance learning software. In *Proceedings of the Thirteenth National Conference on Artificial Intelligence (AAAI-96)*, page 1388, August 4-8, 1996.
7. Nancy E. Reed, Maria Gini, and Paul E. Johnson. Diagnosing multiple interacting defects with examples in pediatric cardiology. In *Proceedings of the AAAI Spring Symposium on Artificial Intelligence in Medicine*, pages 139–143, March 1996.
6. Nancy E. Reed. Diagnosing multiple interacting defects with combination descriptions. In *Proceedings of the 12th National Conference on Artificial Intelligence (AAAI-94)*, page 1486, July-Aug. 1994.
5. Nancy E. Reed. Robust strategies for diagnosing manufacturing defects. In *Proceedings of the AAAI Spring Symposium Series on Detecting and Resolving Errors in Manufacturing Systems*, pages 129–133, March 1994.
4. Nancy E. Reed and Paul E. Johnson. Generative knowledge for computer troubleshooting. In *Proceedings of the Ninth European Conference on Artificial Intelligence (ECAI-90)*, pages 535–540, Stockholm, Sweden, August 6-10, 1990. Pitman Publishing.
3. Dmitry Grivas and Nancy E. Reed. A framework for knowledge-based applications in pavement management. In *VTT Symposium 116: OECD Workshop on Knowledge-Based Systems in Transportation*, volume 1, pages 401–423, Espoo, Finland, June 1990.
2. Nancy E. Reed, Elizabeth R. Stuck, and James B. Moen. Specialized strategies: An alternative to first principles in diagnostic problem solving. In *Proceedings of the Seventh National Conference on Artificial Intelligence (AAAI-88)*, pages 364–368, St. Paul, Minnesota, August 22-26, 1988.

1. G. Johnson, A.J. McCullough, N.E. Reed, and V.L.W. Go. Nutrient specific immunoreactive gastric inhibitory polypeptide (IRGIP) subspecies response. *Gastroenterology*, 78(5):1330, May 1980.

### III. Other Publications

8. Paul Scerri and Nancy Reed. The EASE actor development environment. Technical Report TACSIM-99-01, Computer and Information Science Department, Linköping University, October 1999.
7. Nancy Reed Paul Scerri and Anders Törne. Ease – enduser agents specification environment. Technical Report TACSIM-98-04, Computer and Information Science Department, Linköping University, November 1998.
6. Nancy E. Reed. Report from a grace hopper celebrant. *login.*, 22(6):5, 1997.
5. Nancy E. Reed. Diagnosing multiple interacting defects with combination descriptions. Technical Report CSE-96-19, Computer Science Department, University of California, Davis, Davis, CA 95616-8562, August 1996.
4. Stephen P. Fonseca and Nancy E. Reed. Integration of an expert teaching assistant with distance learning software. Technical Report CSE-96-20, Computer Science Department, University of California, Davis, Davis, CA 95616-8562, August 1996.
3. Nancy E. Reed. *Diagnosing Multiple Interacting Defects with Cue Combination Descriptions*. PhD thesis, University of Minnesota, Minneapolis, June 1995.
2. Nancy E. Reed. Focus: Fallot. AAI Artificial Intelligence in Medicine Subgroup Newsletter, Winter 1993.
1. Nancy E. Reed. Strategies and inexact models in computer hardware diagnosis. M.S., University of Minnesota, Computer Science Department, March 1988.

## Presentations

49. Augmented phonocardiogram acquisition and analysis. July 14, 2011. Invited presentation, (with Todd R. Reed) *Sixth International Conference on the Foundations of Augmented Cognition. Directing the Future of Adaptive Systems (FAC 2011), Part of the 14th International Conference on Human-Computer Interaction (HCI 2011)*, Orlando FL.
48. A portable graphical representation tool for phonocardiograms. Sept. 4, 2009. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2009)*, Minneapolis, MN.
47. Enhancing agent capabilities in a large rescue simulation system. May 8, 2006. *The First International Workshop on Agent Technology for Disaster Management (ATDM) at the Fifth International Joint Conference on Autonomous Agents and Multi-agent Systems*, Future University, Hakodate, Japan.
46. Supporting adjustable autonomy in agent systems. Hawaii, Jan 4, 2006. *Symposium on Integrating Humans with Intelligent Technologies: Merging Theories of Collaborative Intelligence and Expert Cognition at the 39th Hawaii International Conference on System Sciences (HICSS'06)*, Kauai, Hawaii.

45. Integrating problem-solving models in Common Lisp. June 20, 2005. 2005 International Lisp Conference (ILC 05), Stanford University, CA.
44. A user controlled approach to adjustable autonomy. Jan. 5, 2005. *The 38th Hawaii International Conference on System Sciences (HICSS '05)*, Waikoloa, Hawaii.
43. Online User Direction Using Goal Modification. July 14, 2003. *Workshop on Humans and Multi-Agent Systems* at the Second International Conference on Agents and Multi-Agent Systems (AAMAS 03), Melbourne, Australia.
42. Is There an Autonomous Agent in Your Future? June 25, 2003. *Shunzo Sakamaki Extraordinary Lecture Series*, University of Hawaii, Manoa.
41. Intelligent Software Agents - Research and Applications. January 16, 2003. *Docent lecture*, Department of Computer and Information Science, Linköping University, Sweden.
40. Tutorial on Autonomous Agent Systems. October 27, 2002. *Invited tutorial*, International Lisp Conference, San Francisco.
39. Introduction to Autonomous Agents, October 8, 2002. *Invited seminar*, Cyberpizza Hawaii, Honolulu, Hawaii.
38. Intelligent Systems Research, May 2, 2002. *Invited seminar*, Trex/UH Meeting, Honolulu, Hawaii.
37. Enabling Adjustable Autonomy of Autonomous Agents. September 3, 2001. *Invited seminar*, IRST Research Center, Trento, Italy.
36. Intelligent Agents in Interactive Simulation Environments. August 30, 2001. *Center for Industrial Information Technology (CENIIT)*, Linköping, Sweden.
35. Enabling Adjustable Autonomy of Autonomous Agents. July 12, 2001, *Invited seminar*, Department of Electrical Engineering, University of Hawai'i at Manoa.
34. Detecting, Expressing, and Harmonizing Autonomy in Communication Between Social Agents, for H. Hexmoor, H. Holmback and L. Duncan. March 27, 2001. *AAAI Spring Symposium on Autonomy, Delegation and Control*, Stanford University, California.
33. Workshop on Teams with Adjustable Autonomy, Introduction and Summary. August 28, 2000. *Pacific Rim International Conference on Artificial Intelligence*, Melbourne, Australia.
32. Specification of Agents in Complex, Interactive Simulation Environments. May 24, 2000. *NUTEK Complex Technical Systems program evaluation*, Swedish National Board for Industrial and Technical Development (NUTEK), Stockholm, Sweden.
31. The EASE Actor Development Environment. May 10, 2000. *Swedish Artificial Intelligence Society Workshop (SAIS-2000)*, Frimurare Hotel, Linköping, Sweden.
30. Diagnosing Manufacturing Defects using Robust Strategies. April 24, 2000. *Invited Seminar*, Department of Electrical and Computer Engineering, Oklahoma State University, Stillwater, Oklahoma.
29. Intelligent Agents in Interactive Simulation Environments. April 12, 2000. *Center for Industrial Information Technology (CENIIT) workshop*, Frimurare Hotel, Linköping, Sweden.
28. Flying Planes and Playing Football EASE-ily. April 1, 2000. *Invited Seminar*, Linköping University 25th anniversary open house, Department of Computer and Information Science, Linköping University, Linköping, Sweden.
27. Autonomous Agents and Diagnosis Research: Past, Present and Future. Feb 23, 2000. *Invited Seminar*, Real-Time Systems Laboratory Seminar, Department of Computer and Information Science, Linköping University, Linköping, Sweden.

26. Applications of Artificial Intelligence in Diagnosis and Simulation. September 3, 1999. *Invited Seminar*, Artificial Intelligence and Integrated Computer Science Division Seminar, Department of Computer and Information Science, Linköping University, Linköping, Sweden.
25. Adjustable Autonomy in Simulated Pilots, *Workshop on Adjustable Autonomy Systems*, Sixteenth International Joint Conference on Artificial Intelligence (IJCAI99), August 1, 1999, Stockholm, Sweden.
24. Applications of Artificial Intelligence in Diagnosis and Simulation. July 2, 1999. *Invited Seminar*, Department of Electronics and Computer Science, University of Algarve, Campus de Gambelas, Faro, Portugal.
23. Applications of Artificial Intelligence in Diagnosis and Simulation. June 7, 1999. *Invited Seminar*, Department of Physics, University of Patras, Patras, Greece.
22. Invited speaker for a panel on the “Methodological Issues in Computer and Information Science Research”, Department of Computer and Information Science, Linköping University, December 7, 1998.
21. Agents in Interactive Simulation Environments. October 28, 1998. *NUTEK Conference on Complex Technical Systems*, Riverton Hotel, Göteborg, Sweden.
20. Constructing the Correct Diagnosis When Symptoms Disappear With Multiple Defects. October 20, 1998. *Invited Seminar*, Department of Computer and Information Science, Linköping University, Linköping, Sweden.
19. The NUTEK TACSim Project. October 14, 1998. *Real-time Systems Laboratory Seminar*, Department of Computer and Information Science, Linköping University, Linköping, Sweden.
18. Constructing the Correct Diagnosis When Symptoms Disappear. July 30, 1998. *The Fifteenth National Conference on Artificial Intelligence (AAAI-98)*, Madison, Wisconsin.
17. Expert Reasoning in Computer Hardware Diagnosis. January 28, 1997. *Invited Seminar*, Department of Computer and Information Science, Linköping University, Linköping, Sweden.
16. Diagnosing Congenital Heart Defects using the Fallot Computational Model. November 14, 1996. *Medical Informatics Seminar*, University of California, Davis, California.
15. Integration of an Expert Teaching Assistant with Distance Learning Software. August 7, 1996. Poster. *The Thirteenth National Conference on Artificial Intelligence (AAAI-96)*, Portland, Oregon.
14. Diagnosing Congenital Heart Defects using the Fallot Computational Model. April 20, 1996. *The 1996 Highman Symposium on Medical Informatics*, UC Davis Medical Center, Sacramento, California.
13. Diagnosing Multiple Interacting Defects with Examples in Pediatric Cardiology. March 26, 1996. *AAAI Spring Symposium on Artificial Intelligence in Medicine*, Stanford University.
12. Diagnosing Multiple Interacting Defects with Combination Descriptions. August 4, 1994. Poster. *The Twelfth National Conference on Artificial Intelligence (AAAI-94)*, Seattle, Washington.
11. Robust Strategies for Diagnosing Manufacturing Defects. March 21, 1994. *AAAI Spring Symposium on Detecting and Resolving Errors in Manufacturing Systems*, Stanford University.
10. Diagnosing Multiple Interacting Defects with Combination Descriptions. February 16, 1994. Computer Science Colloquium, Mills College, Oakland, California.
9. Methods for Diagnosing Multiple Interacting Defects. October 25, 1993. Computer Science Seminar, California State University at Sacramento.

8. Methods for Diagnosing Multiple Interacting Defects. September 9, 1993. Computer Science Colloquium, Sonoma State University, Rohnert Park, California.
7. Generative Knowledge for Computer Troubleshooting. April 29, 1993. Machine Learning Seminar, University of California, Davis.
6. Methods for Diagnosing Multiple Interacting Defects. January 28, 1993. Computer Science Colloquium, University of California, Davis.
5. Generative Knowledge for Computer Troubleshooting. October 3, 1990. *The Second Swiss Meeting on Artificial Intelligence and Cognitive Science (SGAICO-90)*, Geneva, Switzerland.
4. Knowledge for the Diagnosis of Multiple Diseases. October 2, 1990. Workshop on Artificial Intelligence in Medicine, *The Second Swiss Meeting on Artificial Intelligence and Cognitive Science (SGAICO-90)*. October 2, 1990.
3. Generative knowledge for computer troubleshooting. August 9, 1990. *The Ninth European Conference on Artificial Intelligence (ECAI-90)*, Stockholm, Sweden.
2. Issues in the Diagnosis of Multiple Diseases. February 1, 1990. Cognitive Science Seminar, Institut für Informatik, University of Zürich - Irchel, Zürich, Switzerland.
1. Specialized strategies: an alternative to first principles in diagnostic problem solving. August 25, 1988. *The Seventh National Conference on Artificial Intelligence (AAAI-88)*, St. Paul, MN.

## Professional Affiliations

<b>AAAI</b>	Association for the Advancement of Artificial Intelligence, member since 1985.
<b>AAUP</b>	American Association of University Professors, member 2002-2011.
<b>ACM</b>	Association for Computing Machinery, member since 1985.
<b>AHA</b>	American Heart Association, member since 2003.
<b>AMIA</b>	American Medical Informatics Association, member since 2004.
<b>IEEE</b>	Institute of Electrical and Electronics Engineers, member since 1985. IEEE Computer Society, member since 1985.

## Professional Activities

Reviewer for *IEEE Intelligent Systems*, *Artificial Intelligence in Medicine*, *International Journal of Man-Machine Studies*, *Integrated Computer-Aided Engineering*, *Autonomous Agents 2000*, *Journal of Systems Architecture*, and *IEEE Transactions on Systems, Man and Cybernetics*.

Reviewer, Grace Hopper Celebration of Women in Computing, New Investigators, 2010. Reviewer, NSF Intelligent Systems program, 2008. Masters thesis reviewer for Linköping University, Computer and Information Science Department, 1999-2003. Ph.D. thesis reviewer for the University of Melbourne, Department of Computer Science and Software Engineering, Australia, 1999.

Program committee, reviewer, IEEE Intelligent Agent Technology Conference (IAT11), 2011, (IAT10), 2010, (IAT06), 2006, (IAT05), 2005. Senior program committee, Pacific Rim International Conference on Artificial Intelligence, 2004. Program committee, reviewer, International Conference on Autonomous Agents and MultiAgent Systems (AAMAS03), 2003. Program committee member, Workshop on Autonomy, Delegation, and Control: From Inter-Agent to Groups, at the Eighteenth National Conference on Artificial Intelligence, 2002. Program committee, International Lisp Conference, 2002. Program committee member, Workshop on Autonomy, Delegation, and Control: Interacting with Autonomous Agents, at the Seventeenth International Joint Conference on Artificial Intelligence, 2001. Program committee member and session chair for the 7th IDA PhD. Conference, Linköping University, Oct.

2000. Committee member, Medical Informatics Master of Science degree program formation at UC Davis. Curriculum design/development for the program, 1996-2002. Finance co-chair for the Tenth International Conference on Autonomous Agents and MultiAgent Systems (AAMAS11), May 2-6, 2011, Taipei, Taiwan. Session co-chair for session on Heart Sound Analysis, *Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2009)*, Sept 2-6, 2009, Hilton Minneapolis, MN. Local arrangements chair for the Sixth International Conference on Autonomous Agents and MultiAgent Systems (AAMAS07), May 14-18, 2007, Hawaii Convention Center. Extended board member, Association of Lisp Users, 2002 - present. Chair of the Workshop on Teams with Adjustable Autonomy at the Sixth Pacific Rim International Conference on Artificial Intelligence (PRICAI 2000), Melbourne Australia, Aug. 28, 2000. Session chair for the AAAI Spring Symposium on Detecting and Resolving Errors in Manufacturing Systems, Stanford University, March 22, 1994.

Interim Secretary/Treasurer of the Honolulu ACM and ACM/SIGGRAPH chapters (2003-present). Acting Director, Real-Time Systems Laboratory, Linköping University, April 1999 - Feb 2000. Co-editor, *Advances in Artificial Intelligence: PRICAI 2000 Workshop Reader, Lecture Notes in Artificial Intelligence*, Volume 2112, Springer Verlag, Berlin, with R. Kowalczyk, S. W. Loke and G. Williams, 2001.

## Academic Mentoring

### Graduate Degree Chair

7. Robert Puckett, *Multi-Agent Crowd Behavior Simulation for Tsunami Evacuation*, M.S. in Computer Science, ICS Dept., University of Hawaii, May 2009.
6. Yanhan Nie, *Heart Sounds and Murmurs in an Electronic Medical Record*, M.S. in Computer Science, ICS Dept., University of Hawaii, May 2007.
5. Andrew Schworer, *Mobile Agents for Intrusion Detection*, M.S. in Computer Science, ICS Dept., University of Hawaii, December 2006.
4. Kin-Lik Wang, *An Agent-Based Approach to Kidney Simulation*, M.S. in Computer Science, ICS Dept., University of Hawaii, December 2006.
3. Vengfai (Raymond) U, *Enhancing Agent Capabilities in a Large Simulation System*, M.S. in Electrical Engineering, University of Hawaii at Manoa, December 2005.
2. Bin Wei, *Using a PCI Scheduler and a Dynamic Threshold to Enhance a High Speed Readout System*, M.S., Electrical Engineering, University of Hawaii at Manoa, May, 2005.
1. Paul Scerri, *Designing Agents for Systems with Adjustable Autonomy*, Doctor of Philosophy, Computer and Information Science Department, Institute of Technology, Linköping University, Dissertation No. 724, ISBN-91-7373-207-9, December 14, 2001.

### Current Graduate Advisees

4. Victor Miagkihk, Degree objective: Ph.D. in Computer Science, 2009-present, Topic: Reinforcement learning applied to combinatorial optimization problems. Information and Computer Sciences Dept., University of Hawaii at Manoa.
3. Andrew Schworer, Degree objective: Ph.D. in Computer Science, 2007-present, Topic: Social Media for knowledge discovery in medical informatics. M.S. in C.S. *Mobile Agents for Intrusion Detection* completed in Dec. 2006. Information and Computer Sciences Dept., University of Hawaii at Manoa.
2. Robert Puckett, Degree objective Ph.D. in Computer Science, 2006-present, Topic: Simulation of infectious diseases, M.S. in C.S. *Multi-Agent Crowd Behavior Simulation for Tsunami Evacuation* completed in May 2009. Information and Computer Sciences Dept., University of Hawaii at Manoa.

1. Rich Warren, Degree objective M.S. in Computer Science, ICS Dept. 2005-present, Topic: a multi-agent simulation to explore pursuit-evasion games using probabilistic robotic techniques, Information and Computer Sciences Dept., University of Hawaii at Manoa.

#### Dissertation Committee Participation

7. Jo Han Wu *A Framework for Efficient Creation and Customization of High Level Program Visualizations*, Ph.D. in Computer Science, University of Hawaii, May 2011. Chair: Jan Stelovsky.
6. Michael Riley *Estimation Theoretic Data Fusion* Ph.D. in Electrical Engineering, University of Hawaii. May 2010. Chair: T.R. Reed.
5. Grant S. Shiroma, *Security enhancement and path loss minimization of retrodirective arrays for wireless communication networks* Ph.D. in Electrical Engineering, University of Hawaii. December 2007. Chair: Wayne Shiroma.
4. Michael West, *Robust H-infinity Methods towards the Control and Navigation of Underwater Vehicles*, Ph.D. in Electrical Engineering, University of Hawaii. May 2006. Chair: Vasillis Syrmos.
3. Christoph Aschwandten, *Eventstream: Software to Facilitate Research in Program Comprehension*, Ph.D. in Computer Science, University of Hawaii, December 2005. Chair: Martha Crosby.
2. Mu Feng, *Motion Estimation in the 3-D Gabor Domain*, Ph.D. in Electrical Engineering, University of Hawaii, August, 2005. Chair: Todd R. Reed.
1. Claudio Talarico, *A Unified Hardware-Software Framework for Evaluating Power Consumption of Embedded System-on-a-Chip Designs*, Ph.D. in Electrical Engineering, University of Hawaii, December, 2004. Chair: Vinod Malhotra.

#### Thesis Committee Participation

7. Hua Lin, *Remote Data Backup System for Disaster Recovery*, M.S. in Electrical Engineering, University of Hawaii, December, 2004. Chair: Galen Sasaki.
6. Jing Cao, *Theoretical Analysis of Distributed-Channel Bipolar Device (DCBD) I-V Characteristics*, M.S. in Electrical Engineering, University of Hawaii, May, 2004. Chair: James Holm-Kennedy.
5. Ashok Balasubramanian, *Protected Virtual Private Networks in the HOSE Model*, M.S. in Electrical Engineering, University of Hawaii, December, 2003. Chair: Galen Sasaki.
4. Wei Su, *Advance Reservation for Periodic Transfers With Flexibility*, M.S. in Electrical Engineering, University of Hawaii, December, 2003. Chair: Galen Sasaki.
3. Xioagang Wang, *Red Queue's Occupancy and Performance*, M.S. in Electrical Engineering, University of Hawaii, December, 2003. Chair: Galen Sasaki.
2. Bolin Zhao, *An Alternate Signaling Strategy for WDM Networks Protection*, M.S. in Electrical Engineering, University of Hawaii, December, 2003. Chair: Galen Sasaki.
1. Daniel Schnidman, *Three Dimensional Container Packing using Constrained Resource Planning* M.S. in Electrical Engineering, University of Hawaii, Summer, 2003. Chair: David Y. Y. Yun.

#### European Masters Degree Chair

10. Per-Magnus Olsson, *Intelligent Agents for Aircraft Handling*, Masters thesis, Dept. of Computer and Information Science, Linköping University, LiTH-IDA-EX-02-114, December 12, 2002.
9. Knut Nordin, *Rule System with Adaptive Trigger Conditions*, Masters thesis, Dept. of Computer and Information Science, Linköping University, LiTH-IDA-EX-02-54, April 24, 2002.

8. Patrik Svensson, *Distributed Simulation with HLA*, Masters thesis, Dept. of Computer and Information Science, Linköping University, LiTH-IDA-EX-02-47, April 19, 2002.
7. Ola Lundell, *A Wireless, Handheld Supervision System for Mailrooms* Masters thesis, Dept. of Computer and Information Science, Linköping University, LiTH-IDA-EX-02-40, March 22, 2002.
6. Mattias Lindblad, *A Web Server in the Data Transfer Unit of the JAS 39 Gripen*, Masters thesis, Dept. of Computer and Information Science, Linköping University, LiTH-IDA-EX-01-58, June 7, 2001.
5. Andreas Johansson, *Data Collection in Distributed Command and Control Systems with Mobile Agents*, Masters thesis, Dept. of Computer and Information Science, Linköping University, LiTH-IDA-EX-00-65, June 6, 2000.
4. Eric Jönsson and Jens Nordberg, *Intelligent Agents in an Electronic Auction Context*, Masters thesis, Dept. of Computer and Information Science, Linköping University, LiTH-IDA-EX-00-37, April 14, 2000.
3. Cinzia Foglietta, *Assured Selection – A Relaxed Concurrency Control Mechanism*, Masters thesis, Dept. of Computer and Information Science, Linköping University, LiTH-IDA-EX-99-100, December 13, 1999. Winner of first place award for best master's thesis in 1999-2000.
2. Djamila Haroud, *Qualitative simulation of the heart* (in French), Masters thesis (diplome), Swiss Federal Institute of Technology (EPFL) 1990.
1. Fatma El-Fahid, *A Prolog Interpreter in Common Lisp*, Masters thesis (diplome), Swiss Federal Institute of Technology (EPFL) 1990.

#### **Undergraduate Project/Degree Chair**

7. Su-Ping Chen, *Hospital case development for the Fallot diagnostic model*, Senior Project, 2006. B.S. in Computer Science, University of Hawaii at Manoa. July, 2006.
6. Carolyn Jenkins, *Student Registration Programmed in Logic*, Capstone Design Project, 2003-2005 B.S. in Electrical Engineering, University of Hawaii at Manoa. December, 2005.
5. Ryan Karamatsu, *Passive Depth Imaging with Stereo Optics*, Capstone Design Project, 2003-2004 B.S. in Electrical Engineering, University of Hawaii at Manoa. December, 2004.
4. Sang Pae and Jason Kuan, *Edge Detection with Autonomous Robots*, Capstone Design Project, 2003-2004 B.S. in Electrical Engineering, University of Hawaii at Manoa. December, 2004.
3. MinSok Chung, *Computer Vision System*, Capstone Design Project, 2003-2004, B.S. in Electrical Engineering, University of Hawaii at Manoa. December, 2003.
2. Jason Akagi, *A Computer Vision System for Autonomous Robots*, Capstone Design Project, Department of Electrical Engineering, University of Hawaii at Manoa. 2002-2003. B.S. in Electrical Engineering, August, 2003.
1. Tabitha Wong, Undergraduate Research Project on Diagnosing Interacting Defects Using Cue Combination Types, Funded by NSF, Department of Computer Science, University of California, Davis, 1999-2001. B.S. in Computer Science, June, 2001.

#### **Undergraduate Project/Degree Member**

1. Seth Kamemoto, *Visual Sensing in Autonomous Robots*, Honors Thesis committee member, B.S. with Honors in Electrical Engineering, University of Hawaii, May, 2003. Chair: Tep Dobry.

## Honors and Awards

- 2004 -** Marquis Who's Who in American Education
- 2000 -** Marquis Who's Who in Science and Engineering
- 1999 -** Marquis Who's Who in America 1999
- 1999 -** International Who's Who of Professional and Business Women
- 1997 -** Marquis Who's Who of American Women
- 1997 -** Marquis Who's Who in the World 1997
- 1996 -** Marquis Who's Who in the West 1996-1997
- 1996 -** Dictionary of International Biography
- 1993** Publication award, Computer Science Department, University of Minnesota, Spring 1993, \$100.
- 1985-1989** American Electronics Association Fellowship, \$10,000/year, Faculty development program for prospective teachers.
- 1984-1985** Microelectronic and Information Sciences Fellowship, \$10,000.

## Travel Grants

- 2011** University Research Council travel award to the International Conference on Human-Computer Interaction Orlando, FL, July, \$1,500.
- 2009** University Research Council travel award to the International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2009), Minneapolis, MN. Sept, \$1,525.
- 2006** Hawaii Convention Center travel award to the 5th Autonomous Agents and Multiagent Systems Conference, Hakodate, Japan, May 2006, \$2,565.
- 2006** University Research Council travel award to the 5th Autonomous Agents and Multiagent Systems Conference, Hakodate, Japan, May 2006, \$1,300.
- 2005** University Research Council travel award to the International Lisp Conference, Stanford University, June, 2005, \$1,400.
- 1997** Usenix scholarship to attend the 1997 Grace Hopper Conference, San Jose, Calif. \$630.
- 1994** American Association for Artificial Intelligence Scholarship, Travel, National Conference on A.I., Seattle, Wash., July-August 1994, \$140 + conference registration.
- 1992** American Association for Artificial Intelligence Scholarship, Travel, National Conference on A.I., Sam Jose, Calif., July 1992, \$100 + conference registration.