

Marie desJardins

Associate Professor of Computer Science

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RESEARCH INTERESTS

Artificial intelligence. Primary interests and areas of expertise include machine learning, multi-agent systems, interactive techniques for AI systems, distributed and mixed-initiative planning, preference modeling and learning, and representing and reasoning with uncertainty. Other areas of interest include information management, multiattribute optimization, and bioinformatics.

EDUCATION

- May 1992 Ph.D. in Computer Science, University of California, Berkeley.
PAGODA: A Model for Autonomous Learning In Probabilistic Domains.
My research focused on developing techniques to allow autonomous agents to learn useful models of their environments without being supervised by a human designer. The framework I developed included methods for identifying high-utility learning tasks, incorporating background knowledge into the learning process, learning probabilistic rules, and decision making based on the learned knowledge. *Committee: Dr. Stuart J. Russell (advisor), Dr. Lotfi Zadeh, Dr. Alice Agogino.*
- June 1985 A.B. *magna cum laude* in Engineering/Computer Science, Harvard University.

EMPLOYMENT HISTORY

- 2001–Present **Associate Professor**
Dept. of Computer Science and Electrical Engineering, University of Maryland, Baltimore County
Tenured faculty position teaching undergraduate and graduate courses, leading research projects, advising students, and participating in service activities within and outside of UMBC.
- 1991–2001 **Senior Computer Scientist**
Artificial Intelligence Center, SRI International, Menlo Park, CA
Led and worked on a wide variety of research projects in artificial intelligence. Responsibilities included managing research activities, supervising research staff, establishing and tracking budgets of up to \$1.5 million, writing proposals, giving presentations and demonstrations, and interacting with clients.
Primary research activities focused on machine learning and planning (decision support) systems. Projects included research on mixed-initiative (“user-centric”) Bayesian network learning systems, distributed, interactive planning systems, intelligent task-based distribution of information in collaborative environments, integration of intelligent planning and scheduling methods, and application of machine learning techniques in a molecular biology domain.

TEACHING EXPERIENCE

Spring 2007	CMSC 477/677, "Agent Architectures and Multiagent Systems" (undergraduate/graduate seminar), UMBC.
Fall 2006	CMSC 201, "Computer Science I for Majors" (required undergraduate class), UMBC.
Spring 2006	CMSC 691B, "Basic Research Skills" (graduate seminar), UMBC.
Fall 2005	CMSC 671, "Introduction to Artificial Intelligence" (graduate elective), UMBC.
Spring 2005	CMSC 477/677, "Agent Architectures and Multiagent Systems" (undergraduate/graduate seminar), UMBC.
Fall 2004	CMSC 471, "Introduction to Artificial Intelligence" (undergraduate elective), UMBC.
Spring 2004	CMSC 691B, "Basic Research Skills" (graduate seminar; new course), UMBC.
Fall 2003	CMSC 691E, "Emergence" (graduate seminar; new course), UMBC.
Fall 2003	CMSC 671, "Introduction to Artificial Intelligence" (graduate elective), UMBC.
Spring 2003	CMSC 491M/691M, "Agent Architectures and Multiagent Systems" (undergraduate/graduate seminar), UMBC.
Fall 2002	CMSC 471, "Introduction to Artificial Intelligence" (undergraduate elective), UMBC.
Fall 2002	CMSC 203, "Discrete Structures" (required undergraduate class), UMBC.
Spring 2002	CMSC 691M, "Agent Architectures and Multiagent Systems" (graduate seminar; new course), UMBC.
Fall 2001	CMSC 671, "Introduction to Artificial Intelligence" (graduate elective), UMBC.
Spring 1989	Seminar Coordinator, "Redefining the Role of Women in the Sciences," UC Berkeley.
Summer 1987	Lecturer, CS7, "Introduction to Programming for Scientists and Engineers," UC Berkeley.
Fall 1985/Spring 1986	Teaching Assistant, CS8, "Introduction to Programming," UC Berkeley.
Fall 1984	Head Teaching Fellow, CS180, "Introduction to Artificial Intelligence," Harvard University.
Spring 1984	Teaching Fellow, CS150, "Advanced Computer Programming," Harvard University.
Fall 1983	Teaching Fellow, CS11, "Introduction to Computer Programming," Harvard University.

STUDENT ADVISEMENT

Primary advisor (in progress):

- Postdoctoral assistant co-supervisor, Fusun Yaman (Ph.D., University of Maryland College Park, 2006).

Primary advisor (in progress):

- Ph.D. dissertation advisor, Adam Anthony. Research area: Relational clustering.
- Ph.D. dissertation advisor, Blazej Bulka. Research area: Analyzing and learning about planning search spaces. (Advanced to candidacy, January 2007.)
- Ph.D. dissertation advisor, Markus Dale. Research area: Distributed dynamic planning.
- Ph.D. dissertation advisor, Eric Eaton. Working dissertation title: *Multi-resolution learning for knowledge transfer*. (Advanced to candidacy, March 2007.)
- Ph.D. dissertation advisor, Don Miner. Research area: Swarm system design.
- Ph.D. dissertation advisor, Patricia Ordoñez. Research area: Time series classification for medical diagnosis.
- Ph.D. dissertation advisor, Michael J. Smith. (Advanced to candidacy, April 2006.) Research area: Trust in multi-agent systems.
- M.S. thesis advisor, Brandon Wilson. Research area: Predicting runtime performance of AI planning systems.

Committee member (in progress):

- Ph.D. dissertation committee member, Dana Wortman (Dr. Rheingans, advisor). Dissertation topic: Visualizing sequential patterns in large datasets.
- Ph.D. dissertation committee member, David Trimm (Dr. Rheingans, advisor). Dissertation topic: Visualization of time-varying path data.
- M.S. thesis committee member, Shari Holstege (Dr. Rheingans, advisor).
- M.S. thesis committee member, Bill Krueger, UMBC (Dr. Oates, advisor). Thesis topic: construction of theoretical entities.

Undergraduate research in progress:

- Peter Hamilton '09 (topic: designing swarm systems).
- Steven Martin '08 (topic: relational clustering in predator-prey networks).
- John Stevenson '08 (topic: multi-resolution learning).
- Jake Tanenbaum '08 (topic: evaluation of dimensionality reduction methods).

Graduated (primary advisor):

- M.S. thesis advisor, J.C. Montminy, May 2008. Thesis title: *Improved Information Retrieval through Set-Based Preference Learning*.
- M.S. thesis advisor, Shivali Gupta, December 2007. Thesis title: *Clustering-Based Evolutionary Approaches for Increasing Solution Diversity in Multi-criteria Optimization*.
- M.S. thesis advisor, Adam Anthony, May 2007.
- M.S. thesis advisor, Jonathan Labin, May 2007. Thesis title: *Adaptation of wireless sensor networks through node relocation*.
- Ph.D. dissertation advisor, Qianjun Xu, August 2006. Dissertation title: *Active querying for semi-supervised clustering*.
- M.S. thesis advisor, Eric Eaton, December 2006. Thesis title: *Clustering with propagated constraints*.
- Ph.D. dissertation advisor, Matt Gaston, December 2005. Dissertation title: *Organizational learning and network adaptation in multi-agent systems*.
- M.S. project advisor, Brandon Corfman, December 2004. Project title: *Fast Local Repair: A local repair meta-heuristic for the traveling salesperson problem*.
- M.S. thesis advisor, Mithun Sheshagiri, August 2004. Thesis title: *Automatic service composition and invocation using the semantic web*.
- M.S. thesis advisor, Yan Hao, August 2004. Thesis title: *Multi-objective graph partitioning*.
- M.S. thesis advisor, Priyang Rathod, May 2004. Research area: Stable team formation in multi-agent systems.
- M.S. project advisor, John Simmons, May 2004. Research area: Fault-tolerant multi-agent networks.
- M.S. project advisor, Sowmya Ponoguti, May 2004. Research area: Value grouping in decision tree learning.
- M.S. project advisor, Sohel Merchant, August 2003. Project title: *A general procedure for generating customized substitution matrices for multiple sequence alignment*.
- M.S. project advisor, Csaba Rozgonyi, August 2003. Project title: *Using genetic algorithms to tune motor schema parameters in a multi-goal environment*.
- M.S. thesis advisor, Qianjun Xu, May 2003. Thesis title: *Many features, little data: Feature selection for small data sets using probabilistic background knowledge*.
- M.S. project advisor, Xuanxuan Su, December 2002. Project title: *Image processing for physical data*.
- M.S. thesis advisor, Suryakant Sansare, UMBC, August 2002. Thesis title: *Incorporating constraint checking costs in constraint satisfaction problems*.
- M.S. thesis advisor, Matt Gaston, May 2002. Thesis title: *Agent-based modeling and the effects of network structure on the dynamics of multi-agent social systems*.

Graduated (committee member):

- Ph.D. dissertation committee member, Yi Lu (Dr. Freeland, biology, advisor), December 2007. Thesis topic: Evolution of amino acids.
- Ph.D. dissertation committee member, Alark Joshi (Dr. Rheingans, advisor), December 2007. Dissertation topic: Visualizing time-varying data using illustration-inspired techniques.
- M.S. committee member, Ajay Joglekar (Dr. Oates, advisor), August 2007. Thesis title: *Unsupervised object category recognition in images*.
- Ph.D. dissertation committee member, Indrajit Bhattacharya (Dr. Getoor, University of Maryland College Park, Department of Computer Science, advisor), May 2007. Dissertation topic: Relational clustering for entity resolution in structured and semi-structured databases.
- M.S. thesis committee member, Soumi Ray (Dr. Oates, advisor), May 2007. Thesis title: *Transfer in the context of reinforcement learning by mapping Q-Tables*.
- Ph.D. dissertation committee member, Gang Wu (Dr. Freeland, biology, advisor), December 2006. Dissertation title: *Increasing heterologous gene expression by optimization of codon usage*.
- M.S. thesis committee member, Joseph Catalano, UMBC (Dr. Oates, advisor), August 2006. Thesis topic: time series learning.

- M.S. thesis committee member, Balaji Viswanathan (Dr. Finin, advisor), May 2006. Thesis title: *MISSION: Multiagent institutions for sensor networks*.
- M.S. thesis committee member, Suraj Amonkar (Dr. Oates, advisor), December 2005. Thesis topic: clustering microarray data for bioinformatics.
- M.S. thesis committee member, Kamalika Das (Dr. Rheingans, advisor), December 2005. Thesis topic: visualization of bioinformatics data.
- Ph.D. dissertation committee member, Eleanor Chlan (Dr. Rheingans, advisor), May 2005. Dissertation title: *A botanically inspired information visualization of hierarchical data sets*.
- M.S. thesis committee, Srinivas Bhagavatula (Dr. Rheingans, advisor), December 2004. Thesis title: *Exploring the volume illustration parameter space*.
- Ph.D. dissertation committee member, Harry Chen (Dr. Finin, advisor), May 2005. Dissertation title: *A broker-centric agent architecture for building distributed context-aware systems*.
- M.S. thesis committee member, Mitesh Vasa (Dr. Oates, advisor), December 2004. Thesis title: *Image classification within the multiple instance learning framework*
- M.S. thesis committee member, Poonam Shanbhag, UMBC (Dr. Rheingans, advisor), August 2004. Thesis topic: visualization of time-varying data.
- Ph.D. dissertation committee member, Youyoung Zou, UMBC (Dr. Finin, advisor), August 2004. Dissertation title: *Reasoning agents for the Semantic Web*.
- M.S. thesis committee member, Devina Desai, UMBC (Dr. Oates, advisor), December 2002. Thesis title: *Predicting patterns in multivariate time series using unsupervised learning*.
- Ph.D. dissertation committee member, Kiri Wagstaff, Cornell University (Dr. Cardie, advisor), August 2002. Thesis title: *Intelligent clustering with instance-level constraints*.
- M.S. project reader, Pratik Phadke, UMBC (Dr. Rheingans, advisor), August 2001.
- External Ph.D. dissertation reviewer, Sherlock Au, University of New South Wales, Australia (Dr. Parameswaran, advisor), June 2001.

Undergraduate research completed:

- James MacGlashan '06 (topic: interactive visual clustering).
- Ryan Carr '07 (honors thesis title: "Evolutionary Multiobjective Optimization for School Redistricting").
- Katerina Rohonyan '07 (topic: visualizing time-varying relational networks).
- Patrick Geissel '06 (topic: search space analysis in AI planning), 2006.
- Nataliya Lozova, Louisiana State University '06 (topic: interactive semantic layout for relational data exploration), 2005. (CRA-W Distributed Mentor Project participant.)
- Julia Ferraioli, Bryn Mawr '07 (topic: interactive semantic layout for relational data exploration), 2005. (CRA-W Distributed Mentor Project participant.)
- Craig Cambias '05 (topic: annotated constrained clustering), 2004–2005.
- Natalie Podrazik '06 (topic: feature-based cost-sensitive learning), 2004–2005. Presenter at UMBC's *Undergraduate Research and Creative Achievement Day*, 2005.
- Maria Vachino '05 (topic: interactive graph layout), 2004–2005.
- Neeraj Kashyap '03 (UMBC Applied Math M.S. '05), UMBC Undergraduate Research Award recipient (topic: graph-theoretic approaches to the analysis of constraint satisfaction problem complexity), 2003–2004. Presenter at UMBC's *Undergraduate Research and Creative Achievement Day*, 2004.
- Laurie Botto (topic: genetic algorithms for game playing), 2003.
- David Dalrymple (topic: preference elicitation for academic course scheduling), 2003.
- Eric Eaton (topic: incorporating qualitative background knowledge into machine learning), 2003.
- Mike Furr and Joshua Barczak (topic: interactive graph layout for visualizing large relational knowledge bases), 2003.
- Joshua Solomon (topic: temporal constraint reasoning for domains with external events), 2003.
- Thomas Walsh (topic: the effects of graph density on multi-agent system team formation), 2003.
- Mitch White (topic: the effects of team formation strategies on multi-agent system team formation), 2003.

OTHER TEACHING AND MENTORING ACTIVITIES

- Co-Chair, AAI-08 AI Teaching Forum.

- Reviewer and panelist, 2007 AAAI/SIGART Doctoral Consortium.
- Doctoral Consortium Co-Chair, 2006 International Conference on Automated Planning and Scheduling.
- Reviewer and Panelist, 2006 AAAI/SIGART Doctoral Consortium.
- Evaluator, CWIT/ADVANCE Design Competition, February 2006.
- Organizer, “Great Student Talks” Colloquium, UMBC, December 2005.
- Doctoral Consortium Co-Chair, 2006 International Conference on Planning and Scheduling.
- Reviewer and Panelist, 2005 AAAI/SIGART Doctoral Consortium.
- Co-Chair (with Robert St. Amant), 2004 AAAI/SIGART Doctoral Consortium.
- Chair, 2003 AAAI/SIGART/IJCAI Doctoral Consortium.
- Co-chair (with Rob Holte), ICML-03 Mini-Tutorial on Paper Reviewing.
- Mentor, Russell Osborn, Mt. Hebron High School, 2001-2002.
- Judge and Award Presenter, WISE Outstanding Achievement Award, Howard County Science Fair, March 2002.
- Chair, 2002 AAAI/SIGART Doctoral Consortium.
- Panelist and chair, 2001 IJCAI/AAAI/SIGART Doctoral Consortium.
- Panelist, 2000 AAAI/SIGART Doctoral Consortium.
- Mentor, Computing Research Association’s Distributed Mentor Project, 1997.
- Mentor, UC Berkeley’s Women in Computer Science and Engineering Mentoring Program, 1997.
- Mentor, Telementoring Young Women in Science, Engineering, and Technology Project, 1996.
- President, UC Berkeley’s Women in Computer Science and Engineering, 1997-1998.
- Author, “How to Succeed in Graduate School” (see Publications list), a guide for graduate students that has been widely distributed on the web and made available at numerous universities as part of their graduate student orientation programs.
- Founder and Participant, “Big Sister” (peer mentoring program for women graduate students), UC Berkeley, 1988.
- Founder, Cal AI Students (CalAIS—student AI seminar series), UC Berkeley, 1987.

FUNDED PROJECTS (AT UMBC)

- Modeling and Learning Preferences Over Sets (DARPA Perceptive Assistant that Learns (PAL) Program; SRI International, prime contractor). \$72,284. Duration: 12/06–12/07.
- POIROT: Plan Order Induction by Reasoning from One Trial (DARPA Integrated Learning program; BBN, prime contractor). \$522,401. Duration: 8/06–7/10.
- Organizational Adaptation in Artificial Agent Societies (NSF CAREER). \$500,000. Duration: 5/15/06–5/14/11.
- Interactive Visual Methods for Partitioning Multidimensional Spatial Data (NSF Information and Intelligent Systems). Co-PI: Penny Rheingans. \$385,000. Duration: 9/15/05–8/31/08.
- Motion-Based Visualizations for Exploration and Deep Understanding of Relational, Spatio-Temporal Data (ARDA/NGA GI2Vis Program). Co-PIs: Tim Oates, Penny Rheingans, Jim Blythe (USC/ISI), Cathleen McGrath (Loyola Marymount). Duration: 9/05–8/07.
- ADVANCE Graduate Research Assistantship, \$18,000. Duration: 8/04–5/05.
- Research Experiences for Undergraduates (supplemental NSF funding for two undergraduate research assistants), \$14,000. Duration: 8/04–6/05.
- ITR: Knowledge-Enhanced Discovery System (KEDS): Incorporating Background Knowledge for Scientific Discovery (NSF ITR). Co-PIs: Marie desJardins, Kiri Wagstaff (JHU/APL). \$770,000. Duration: 9/03–9/08.
- Developing an Integrated Toolkit to Explore Code/Genome Interaction (NSF). Co-PI. PI: Steve Freeland. \$548,302. Duration: 11/03–10/07.
- Identifying and Visualizing Changing Patterns in Linked Data (NIMA G2IVis Program). Co-PIs: Tim Oates, Marie desJardins, Lise Getoor (UMd/UMIACS), and Penny Rheingans. Duration: 9/02–9/04.
- Incorporating Partial Models and Qualitative Explanations into Bayesian Network Learning Methods. (UMBC Research Assistantship Support (RAS)). \$7,000. Duration: 8/02–8/03.
- Virtual Telescopes in Education (NSF). PI: Dr. Susan Hoban, GEST/GSFC. Duration: 10/01–9/04.
- Multi-agent systems and machine learning research (department startup funding). Duration: 1/02–8/02.

PREVIOUS AWARDS (NOT AT UMBC)

- Incremental Negotiation and Coalition Formation for Resource-Bounded Reasoners. Defense Advanced Research Projects Agency (DARPA) Autonomous Negotiating Teams Program, \$2,150,000. Duration: August 1999-August 2002. (PI: Dr. Charlie Ortiz. Dr. Ortiz and I co-authored the proposal.)
- Mixed-Initiative Knowledge Acquisition. DARPA High-Performance Knowledge Bases Program, \$1,500,000. Duration: May 1997-April 2000. (Co-PI: Dr. Moises Goldszmidt.)
- Timely Information Distribution Environments. DARPA Intelligent Collaboration and Visualization Program, \$1,700,000. Duration: June 1997-May 2000. (PI: Dr. Michael Wolverton. Dr. Wolverton and I co-authored the proposal.)
- Joint Maritime Crisis Action Planning. Office of Naval Research, \$860,000. Duration: July 1996-December 1999.
- Scientific Discovery in Molecular Knowledge Bases. SRI internal research & development (IR&D) award, \$40,000. Duration: January 1996-December 1996.
- Adaptive Training Systems. SRI IR&D award, \$120,000. Duration: January 1994-December 1995. (Co-PI: Denise Gürer.)
- Machine Learning for Military Operations Planning. DARPA/Rome Laboratory Planning Initiative Phase II, \$700,000. Duration: April 1993-September 1996.

PROFESSIONAL SERVICE

UMBC service:

- Host, CSEE Colloquium Series, Dr. Eric Roberts, Stanford University (April 2008).
- Member, UMBC Undergraduate Council (2008–2010).
- Judge, UMBC Graduate Research Conference (May 2007).
- Faculty Adviser, WISE—Graduate (Spring 2007–present).
- Member, CSEE Undergraduate Committee (2006–2007).
- Member, UMBC Faculty Development Steering Committee (2006–2008).
- Judge, UMBC Graduate Research Conference (May 2006).
- Host, CSEE Colloquium Series, Dr. Craig Boutilier, University of Toronto (April 2006).
- Chair, CSEE Colloquia Committee (Fall 2005–Spring 2006).
- Co-Host, CRA-W Distinguished Lecture Series, Dr. Barbara Grosz, Harvard University (April 2005).
- Host, CSEE Colloquium Series, Dr. Adele Howe, Colorado State University (April 2005).
- Interviewer, 2005 Scholar Selection Day (March 2005).
- Host, CSEE Colloquium Series, Dr. Michael Littman, Rutgers University (January 2003).
- Co-advisor, Computer Science Graduate Student Association (Spring 2003–present).
- CMSC 345 Customer (Fall 2002, Spring 2003, Fall 2003, Fall 2004, Fall 2006).
- CS Graduate Committee (Fall 2002–2005).
- CS Graduate Admissions Committee (Spring 2002–Fall 2007).
- Center for Women and Information Technology (CWIT) Internal Board Member (Spring 2002–Spring 2005).
- Chair, GEST Graduate Fellowship Committee (Spring 2002–Spring 2004).
- CS Scheduling Committee (Fall 2001–Fall 2003).
- Undergraduate academic advising (Spring 2002–present).
- Host, CSEE Colloquium Series, Dr. Sean Luke, George Mason University (March 2003).
- Host, CSEE Colloquium Series, Dr. Stephen Freeland, UMBC (November 2002).
- Co-host, CWIT Guest Speaker Series, Dr. Allan Fisher (October 2002).
- Host, WISE Guest Speaker Series, Dr. Barbara Simons (April 2002).

Offices held:

- Image of Computing Task Force member, 2007–present.
- Computing Research Association Board Member (AAAI Liaison), 2006–2009.
- AAAI Symposium Associate Chair, 2002–2006.
- SIGART Vice Chair, 2001–2005.
- AAAI Councillor, 2001–2004. (Grants Committee member.)

Program chair/co-chair:

- Workshops and Tutorials Chair, 2005 International Conference on Knowledge Capture (K-Cap'05).
- Co-Chair of the 2002 AAAI Workshop on Planning with and for Multiagent Systems (Chair: Michael Brenner).
- 2000 AAAI Workshop Program Chair (Co-chair: Berthe Choueiry).
- 1999 AAAI Workshop Program Co-Chair (Chair: David Leake).
- Chair of the 1998 AAAI Fall Symposium on Distributed Continual Planning.
- Co-chair of the 1994 AAAI Spring Symposium on Goal-Directed Learning.
- Chair of the 1992 AAAI Workshop on Constraining Learning with Prior Knowledge.

Program committees:

- PC Member for the 2008 Spring Symposium on Using AI to Motivate Greater Participation in Computer Science.
- PC Member for the AAAI-07 Student Abstract Program.
- Senior PC Member for the 2007 International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-07).
- PC Member and AAAI-07 Best Paper Award Committee Member for the Twenty-Sixth National Conference on Artificial Intelligence (AAAI-2007).
- PC Member for SARA-06.
- Senior PC Member for the 23rd International Conference on Machine Learning (ICML-06).
- Senior PC Member for the 2006 International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-06).
- PC Member for the Twenty-Second International Conference on Machine Learning (ICML-05).
- PC Member for the 2005 International Conference on Automated Planning and Scheduling (ICAPS-05).
- PC Member for the Twentieth National Conference on Artificial Intelligence (AAAI-05).
- PC Member for the International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-05).
- PC Member for the 2005 Fall Symposium on Mixed-Initiative Problem Solving Assistants.
- PC Member for the 2005 ICAPS Workshop on Multiagent Planning and Scheduling.
- PC Member for the 2004 AAAI Fall Symposium on Artificial Multiagent Learning.
- PC Member for the 2004 International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-04).
- PC Member for the 2004 Conference on Innovative Applications of Artificial Intelligence (IAAI-04).
- PC Member for the Twenty-First International Conference on Machine Learning (ICML-04).
- PC Member for the 2004 National Conference on Artificial Intelligence (AAAI-04).
- PC Member for the Second International Conference on Knowledge Capture (K-CAP '03).
- PC Member and Registration Chair for the Twentieth International Conference on Machine Learning (ICML-03).
- PC Member for the 2003 AAMAS Workshop on Representations and Approaches for Time-Critical Decentralized Resource Allocation.
- PC Member for the 2003 International Conference on Innovative Applications of Artificial Intelligence.
- PC Member for the Second International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-03).
- PC Member for the 2002 AAMAS-02 Workshop on MAS Problem Spaces and Their Implications.
- PC Member for the 2002 Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-02).
- PC Member for the 2001 Autonomous Agents Workshop on Infrastructure for Agents and Multi-Agent Systems.
- PC Member for the 2000 International Conference on Multi-Agent Systems.
- PC Member for the 1999 Association for Computational Linguistics Workshop on Unsupervised Learning in Natural Language Processing.
- PC Member for the 1999 IJCAI Workshop on Intelligent Workflow and Process Management.
- PC Member for the 1999 AAAI Workshop on Agent-Based Systems in the Business Context.
- PC Member for the 1998 National Conference on Artificial Intelligence (AAAI-98).
- Session chair and reviewer for the AI & Expert Systems track, 1997 IEEE Conference on Military Communications (MILCOM-97).
- PC Member for the 1996 National Conference on Artificial Intelligence (AAAI-96).
- PC Member for the 1994 AAAI Spring Symposium on Integrated Planning Applications.
- PC Member for the 1994 International Conference on Machine Learning (ICML-94).

- PC Member for the 1994 Conference on Knowledge-Based AI Systems in Aerospace and Industry.
- PC Member for the 1993 National Conference on Artificial Intelligence (AAAI-93).

Editorial boards and guest editing:

- Guest Editor (with Matthew Gaston and Dragomir Radev), Special Issue of *AI Magazine* on AI & Networks (forthcoming).
- Associate Editor of the *Journal of Autonomous Agents and Multi-Agent Systems* (2007–present).
- Member of the Editorial Board of *AI Magazine* (2004–present).
- Member of the Editorial Board of the *Journal of Artificial Intelligence Research* (2002–2005, 2006–present).
- Member of the Editorial Board of *Applied Intelligence* (1996–2005).
- Guest Editor (with Edmund H. Durfee, Charles L. Ortiz, Jr., and Michael Wolverton), Special Issue of *AI Magazine* on Distributed, Continual Planning (Winter 2001).
- Guest Editor (with Diana Gordon) of the *Machine Learning* Special Issue on Evaluation of Bias (20:1-2, July/August 1995).

Additional reviewing:

- Member of an NSF review panel, January 2008.
- Scholarship reviewer for the 2007 Grace Hopper Celebration of Women in Computing.
- Reviewer for VIS'07.
- Reviewer for an NSF review panel, March 2007.
- Reviewer for an Army Research Office research proposal, March 2005.
- Reviewer for the 2005 International Joint Conference on Artificial Intelligence.
- Member of an NSF Proposal Review Panel, March 2003.
- Reviewer for IJCAI-2003.
- Reviewer for the Norwegian Research Council, August 2002.
- Member of an NSF Proposal Review Panel, June 2002.
- NSF SBIR Reviewer, Spring 2002.
- External Reviewer for NASA's Applied Information Systems Research Program, December 2001.
- Reviewed papers submitted to *Artificial Intelligence*, *Machine Learning*, the *Journal of Machine Learning Research*, the *Journal of Artificial Intelligence Research*, *AI Magazine*, *Autonomous Agents and Multi-Agent Systems*, *IEEE Transactions*, and *Journal of Experimental and Theoretical Artificial Intelligence*, 1993–present.
- External Reviewer for NASA's Cross-Enterprise Technology Development Program, 1999 and 2000.
- Member of an NSF Proposal Review Panel, 1997.
- Reviewer for the 1996 National Academy of Sciences Report on Careers in Science and Engineering: A Student Planning Guide to Graduate School and Beyond.
- Reviewer for the 1995 International Joint Conference on Artificial Intelligence (IJCAI-95).

Other professional service:

- Member of the search committee *IEEE Intelligent Systems*.

SELECTED PUBLICATIONS

Names in italics are students whose work I supervised or co-supervised.

Under Review

Kiri L. Wagstaff, Marie desJardins, and *Eric Eaton*, “Modeling and learning user preferences over sets,” resubmitted to *Machine Learning*, March 2008.

2008

Don Miner, Marie desJardins, and *Peter Hamilton*, “The Swarm Application Framework,” *Proceedings of the AAAI-08 National Conference on Artificial Intelligence* (Student Abstract), 2008.

Adam Anthony, Marie desJardins, and *Steve Martin*, “A Multi-Agent Team Formation Framework for Classroom Instruction,” in *Working Notes of the AAAI Colloquium on AI Education*, 2008.

Michael Smith and Marie desJardins, "Learning to trust in the competence and discounting of agents," *Journal of Autonomous Agents and Multi-Agent Systems*, 2008 (to appear).

Fusun Yaman, Thomas Walsh, Michael Littman, and Marie desJardins, "Democratic approximation of lexicographic preference models," *Proceedings of the 25th International Conference on Machine Learning*, 2008. (Acceptance rate: 27%.) (A later version of this paper was also accepted to the *AAAI-08 4th Multidisciplinary Workshop on Advances in Preference Handling*.)

Matthew E. Gaston and Marie desJardins, "The effect of network structure on dynamic team formation in multi-agent systems," *Computational Intelligence*, 2008 (to appear).

Marie desJardins, Lise Getoor, and Priyang Rathod, "Learning structured Bayesian networks: Combining abstraction hierarchies and tree-structured conditional probability tables," *Computational Intelligence* 24(1), 2008.

Adam Anthony and Marie desJardins, "Generative models for clustering: The next generation," *Working Notes of the Spring Symposium on Social Information Processing*, AAAI Press, March 2008.

2007

Cecilia Shore, Zachary Birchmeier, Marie desJardins, Wanda Pratt, and Hugo Schielka, "Time-to-degree: Some suggestions for keeping on schedule as a PhD student," *APS Observer Student Notebook*, November 2007.

Adam Anthony and Marie desJardins, "Data clustering with a relational push-pull model," *Proceedings of the ICDM-07 Workshop on Optimization-Based Data Mining Techniques with Applications*, Omaha, Nebraska, IEEE Press, October 28–31, 2007.

Blazej Bulka, Matthew Gaston, and Marie desJardins, "Local strategy learning in networked multiagent team formation." *Journal of Autonomous Agents and Multi-Agent Systems* 15(1): 29–45, August 2007.

Markus E. Dale and Marie desJardins, "The FAME problem domain for distributed planning," *Working Notes of the AAAI Fall Symposium on "Regarding the 'Intelligence' in Distributed Intelligent Systems*," November 2007.

Brandon Wilson and Marie desJardins, "Forming stable, overlapping coalitions in an open multi-agent system," *Working Notes of the AAAI Fall Symposium on "Regarding the 'Intelligence' in Distributed Intelligent Systems*," November 2007.

Jason Pearlman, Penny Rheingans, and Marie desJardins, "Visualizing diversity and depth over a set of objects," *IEEE Computer Graphics and Applications*, pp. 35–45, September 2007.

Fusun Yaman and Marie desJardins, "More-or-less CP-networks," *Proceedings of the Twenty-Third Conference on Uncertainty in Artificial Intelligence (UAI-07)*. (Acceptance rate: 32%.)

Adam Anthony and Marie desJardins, "Data clustering with a relational push-pull model," *Proceedings of the National Conference on Artificial Intelligence (AAAI-2007)* (student abstract).

Eric Eaton, Marie desJardins, and John Stevenson, "Using multiresolution learning for transfer in image classification," *Proceedings of the National Conference on Artificial Intelligence (AAAI-2007)* (student abstract).

Yi Lu, Blazej Bulka, Marie desJardins and Stephen Freeland, "Amino acid quantitative structure property relationship database: A web-based platform for quantitative investigations of amino acids," *Protein Engineering, Design, and Selection* 20: 347–351, July 2007.

Marie desJardins, James MacGlashan, and Julia Ferraioli, "Interactive visual clustering," *Proceedings of the 2007 International Conference on Intelligent User Interfaces*, Honolulu, HI, January 2007. (Acceptance rate for short papers: 35%.)

Marie desJardins, Blazej Bulka, Ryan Carr, Andrew Hunt, Eric Jordan, and Penny Rheingans, "Heuristic search and information visualization methods for school redistricting." In *AI Magazine, Special Issue on Innovative Applications (Best Papers of IAAI-2006)*, AAAI Press, Fall 2007.

2006

Marie desJardins and *Matthew Gaston*, “Speaking of relations: Connecting statistical relational learning and multi-agent systems,” in *Proceedings of the ICML 2006 Workshop on Statistical Relational Learning*.

Adam Anthony and Marie desJardins, “Open problems in relational data clustering,” in *Proceedings of the ICML 2006 Workshop on Statistical Relational Learning*.

Eric Eaton and Marie desJardins, “Knowledge transfer with a multiresolution ensemble of classifiers,” in *Proceedings of the ICML 2006 Workshop on Transfer Learning*.

Blazej Bulka, Marie desJardins and *Stephen J. Freeland*, “An interactive visualization tool to explore the biophysical properties of amino acids and their contribution to substitution matrices,” *BMC Bioinformatics*, 2006.

Marie desJardins, *Eric Eaton*, and *Kiri L. Wagstaff*, “Learning user preferences for sets of objects.” In *Proceedings of the 23rd International Conference on Machine Learning (ICML-06)*, 2006. (Acceptance rate: 20%.)

Jim Blythe, *Mithila Patwardhan*, *Tim Oates*, Marie desJardins, and *Penny Rheingans*, “Visualization support for fusing relational, spatio-temporal data: Building career histories.” In *Proceedings of FUSION 2006*.

Marie desJardins, *Blazej Bulka*, *Ryan Carr*, *Andrew Hunt*, *Priyang Rathod*, and *Penny Rheingans*, “Heuristic search and information visualization methods for school redistricting.” In *Proceedings of the Eighteenth Annual Conference on Innovative Applications of Artificial Intelligence (IAAI-06)*, AAAI Press, 2006. *Invited to submit an extended version to AI Magazine’s annual issue on Best Papers from IAAI-06.*

Blazej Bulka and Marie desJardins, “Integrating top-down planning with a bottom-up approach that learns to locally combine actions.” In *Working Notes of the AAAI Spring Symposium on Distributed Plan and Schedule Management*, AAAI Press, 2006.

2005

Marie desJardins, *Lise Getoor*, and *Priyang Rathod*, “Bayesian network learning with abstraction hierarchies and context-specific independence.” In *Proceedings of the 16th European Conference on Machine Learning (ECML-2005)*. (Acceptance rate for full papers: 12%.)

Qianjun Xu, Marie desJardins, and *Kiri Wagstaff*, “Active constrained clustering by examining spectral eigenvectors.” In *Proceedings of Discovery Science 2005*. (Acceptance rate for long papers: 21%.) *Winner of the first annual Carl Smith Award (best student paper at the conference).*

Marie desJardins, “Case study: Teaching research skills to computer science graduate students.” In *Proceedings of the 3rd International Conference on Education and Information Systems, Technologies and Applications (EISTA 2005)*, Orlando, FL, July 14-17, 2005.

Poonam Shanbhag, *Penny Rheingans*, and Marie desJardins. “Temporal visualization of planning polygons for efficient partitioning of geo-spatial data.” In *Proceedings of InfoVis 2005*, October 23-25, Minneapolis, Minnesota, 2005. (Acceptance rate: 27%.)

Matthew E. Gaston and Marie desJardins. “A simple learning approach for endogenous network formation.” In *Working Notes of the AAAI-05 Workshop on Multiagent Learning*, Pittsburgh, PA: AAAI Press, 2005.

Blazej Bulka, *Matthew Gaston*, and Marie desJardins. “Local learning to improve organizational performance in networked multiagent team formation.” In *Working Notes of the AAAI-05 Workshop on Multiagent Learning*, Pittsburgh, PA: AAAI Press, 2005.

Matthew E. Gaston and Marie desJardins. “Agent-organized networks for multi-agent production and exchange.” In *Proceedings of the Twentieth National Conference on Artificial Intelligence (AAAI-05)*. AAAI Press: Pittsburgh, PA, July 2005. (Full paper acceptance rate: 18%.)

Marie desJardins and *Kiri Wagstaff*. “DD-PREF: A language for expressing preferences over sets.” In *Proceedings of the Twentieth National Conference on Artificial Intelligence (AAAI-05)* (poster presentation), pp. 620–626. AAAI Press: Pittsburgh, PA, July 2005. (Combined paper and poster acceptance rate: 28%.)

Michael J. Smith and Marie desJardins. “A model for competence and integrity in variable payoff games.” In *Working*

Notes of the AAMAS-05 Workshop on Trust in Multiagent Systems. Utrecht, Netherlands, July 2005.

Balaji Viswanathan and Marie desJardins. "A model for large-scale team formation for a disaster rescue problem." In *Working Notes of the 2nd Workshop on the Coordination of Large-Scale Multi-Agent Systems (LSMAS 2005)* (held in conjunction with AAMAS-05). Utrecht, Netherlands, July 2005.

Srinivas Bhagavatula, Penny Rheingans, and Marie desJardins. "Discovering high-level parameters for visualization design." *Proceedings of EuroVis 2005: Eurographics/IEEE-VGTC Symposium on Visualization.* Leeds, United Kingdom, June 2005. (Acceptance rate: 36%.)

Matthew E. Gaston and Marie desJardins. "Agent-organized networks for dynamic team formation." In *Proceedings of the 2005 International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-05)*. Utrecht, Netherlands, July 2005. (Full paper acceptance rate: 24%.)

Michael J. Smith and Marie desJardins. "A framework for decomposing reputation in MAS into competence and integrity." In *Proceedings of the 2005 International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-05)* (poster presentation). Utrecht, Netherlands, July 2005. (Combined full paper and poster acceptance rate: 47%.)

Marie desJardins, Eric Eaton, and Kiri Wagstaff. "A context-sensitive and user-centric approach to developing personal assistants." In *Working Notes of the AAI Spring Symposium on Persistent Assistants*, Palo Alto, CA, March 21-23, 2005.

Matthew E. Gaston and Marie desJardins. "Social network structures and their impact on multi-agent system dynamics." In *Proceedings of the 18th International Conference of the Florida Artificial Intelligence Research Society (FLAIRS-05)*, pp. 32-37, Clearwater Beach, FL, May 2005. Acceptance rate: 53.4%.

Qianjun Xu, Marie desJardins, and Kiri Wagstaff. "Constrained spectral clustering under a local proximity assumption." In *Proceedings of the 18th International Conference of the Florida Artificial Intelligence Research Society (FLAIRS-05)*, pp. 866-867, Clearwater Beach, FL, May 2005. Combined paper/poster acceptance rate: 66.8%.

2004

Priyang Rathod and Marie desJardins. "Stable team formation among self-interested agents." In *Working Notes of the AAI-2004 Workshop on Forming and Maintaining Coalitions in Adaptive Multiagent Systems*, San Jose, CA, August 2004.

Matthew E. Gaston, John Simmons, and Marie desJardins. "Adapting network structure for efficient team formation." In *Working Notes of the AAMAS-04 Workshop on Learning and Evolution in Agent-Based Systems*, New York, NY, July 2004. A longer version was published in the *Working Notes of the AAI-2004 Fall Symposium on Learning in Multiagent Systems*, Washington, D.C., October 2004.

2003

Matthew Gaston and Marie desJardins. "Team formation in complex networks." In *Proceedings of the North American Association for Computational Science and Organizational Science (NAACSOS) Conference*, Pittsburgh, PA, June 22-25, 2003.

Mithun Sheshagiri, Marie desJardins, and Tim Finin. "A planner for composing services described in DAML-S." In *Proceedings of the ICAPS-03 Workshop on Planning for Web Services*, Trento, Italy, June 2003. Also published in *Proceedings of the AAMAS-03 Workshop on Web Services and Agent-Based Engineering*, Melbourne, Australia, July 2003.

2002

Mithun Sheshagiri and Marie desJardins. "Data persistence: A design principle for hybrid robot architectures." In *Proceedings of the 2002 International Conference on Knowledge-Based Computing Systems*, Mumbai, India, December 2002.

Marie desJardins. "Research directions in interactive AI." In *Working Notes of the AAI Fall Symposium on Personal-*

ized Agents, North Falmouth, MA, November 15–17, 2002.

Karen L. Myers, Michael J. Wolverton, W. Mabry Tyson, Peter A. Jarvis, Thomas J. Lee, and Marie desJardins. “PASSAT: User-centric planning technology.” In *Proceedings of the Third International NASA Workshop on Planning and Scheduling for Space*, Houston, Texas, October 27-29, 2002.

Priyang Rathod, Marie desJardins, and Suryakant Sansare. “Interactive, incremental scheduling for Virtual Telescopes in Education.” In *Proceedings of the Third International NASA Workshop on Planning and Scheduling for Space*, Houston, Texas, October 27-29, 2002.

Kishalay Kundu, Chad Sessions, Marie desJardins, and Penny Rheingans. “Three-dimensional visualization of hierarchical task network plans.” In *Proceedings of the Third International NASA Workshop on Planning and Scheduling for Space*, Houston, Texas, October 27-29, 2002.

Susan Hoban, Marie desJardins, Nora Farrell, Priyang Rathod, Joel Sachs, Suryakant Sansare, Yelena Yesha, John Keating, Bart Busschots, Johanna Means, Gilbert Clark, Lou Mayo, and Willard Smith. “Virtual Telescopes in Education.” *Journal of Digital Information Special Issue on Interactivity in Digital Libraries*, 2002.

2001

Marie desJardins, Lise Getoor, and Daphne Koller. “Using feature hierarchies in Bayesian network learning (extended abstract).” In *Proceedings of the Symposium on Abstraction, Reformulation and Approximation (SARA-2000)*, Lago Vista, Texas, July 2000, AAAI Press.

David Wilkins and Marie desJardins. “A call for knowledge-based planning.” *AI Magazine* 22(1): 99–115, Spring 2001. (An earlier version was published in the *Proceedings of the Second International NASA Workshop on Planning and Scheduling for Space*, San Francisco, CA, pp. 187–192, 2000.)

Charles L. Ortiz, Jr., Eric Hsu, Marie desJardins, Timothy Rauenbusch, Barbara Grosz, Osher Yadgar, and Sarit Kraus. “Incremental negotiation and coalition formation for resource-bounded agents.” In *Working Notes of the AAAI Fall Symposium on Negotiation Methods for Autonomous Cooperative Systems*, North Falmouth, MA, Nov. 2-4, 2001.

Marie desJardins, Karen Myers, David Morley, and Michael Wolverton. “Research summary: Communication-sensitive decision making in multi-agent, real-time environments.” In *Working Notes of the AAAI Spring Symposium on Robust Autonomy*, Stanford, CA, March 2001.

Marie desJardins. “Machine learning” (sidebar entry). In *Van Nostrand Encyclopedia of Science 9/e*, John Wiley and Sons, New York, 2002.

Patricia Hennings and Marie desJardins. “A young poet sings.” *Pan Pipes*, Summer 2001, pp. 5-7.

2000

Penny Rheingans and Marie desJardins. “Visualizing high-dimensional predictive model quality.” In *Proceedings of IEEE Visualization 2000*, pp. 493–496.

1999

Marie desJardins, Edmund H. Durfee, Charles L. Ortiz, Jr., and Michael J. Wolverton. “A survey of research in distributed, continual planning.” *AI Magazine*, 20(4): 13–22, Winter 1999.

Marie desJardins and Michael Wolverton. “Coordinating a distributed planning system.” In *AI Magazine*, 20(4): 45–53, Winter 1999. (An earlier version appeared in *Working Notes of the AAAI Fall Symposium on Distributed Continual Planning*, AAAI Press Technical Report, 1998.)

Marie desJardins and Penny Rheingans, “Visualization of high-dimensional model characteristics.” In *Working Notes of the CIKM-99 Workshop on New Paradigms in Information Visualization and Manipulation*, ACM Press, 1999.

1998

Michael Wolverton and Marie desJardins. “Controlling communication in distributed planning using irrelevance rea-

soning.” In *Proceedings of the Fifteenth National Conference on Artificial Intelligence*, Madison, WI, AAAI Press, 1998.

Marie desJardins, Anthony Francis, and Michael Wolverton. “Hybrid planning: An approach to integrating generative and case-based planning.” In *Working Notes of the AAAI-98 Workshop on Case-Based Reasoning Integrations* (available as AAAI Technical Report WS-98-15). AAAI Press, 1998.

1997

Marie desJardins, Peter D. Karp, Markus Krummenacker, Thomas J. Lee, and Christos A. Ouzounis. “Prediction of enzyme classification from protein sequence without the use of sequence similarity.” In *Proceedings of the Fifth International Conference on Intelligent Systems for Molecular Biology*, Halkidiki, Greece, 1997.

1996

Marie desJardins. “Knowledge acquisition tools for planning systems.” In Austin Tate, ed., *Advanced Planning Technology: Technological Achievements of the ARPA/Rome Laboratory Planning Initiative*, pp. 124-129, AAAI Press, Menlo Park, CA, 1996.

1995

Marie desJardins. “Goal-directed learning: A decision-theoretic model for deciding what to learn next.” In *Goal-Driven Learning*, Ashwin Ram and David B. Leake, eds., MIT Press, 1995, pp. 241-250.

Diana F. Gordon and Marie desJardins. “Evaluation and selection of biases in machine learning.” *Machine Learning* 20(1-2), July/August 1995, pp. 5-22.

Mark H. Burstein, Richard Schantz, Marie A. Bienkowski, Marie E. desJardins, and Stephen F. Smith. “The Common Prototyping Environment.” *IEEE Expert*, February 1995, pp. 17-26.

Denise W. Gürer, Marie desJardins, and Mark Schlager. “Representing a student’s learning states and transitions.” In *Working Notes of the AAAI Spring Symposium on Representing Mental States and Mechanisms*, Stanford, CA, March 1995. Published as a AAAI Technical Report.

Marie desJardins. “How to succeed in graduate school: A guide for students and advisors.” *Crossroads: The Online ACM Student Magazine*, 1.2 (December 1994) and 1.3 (January 1995). Also published in *IAPPP Communications* (Winter 1995, no. 58) and excerpted in *SHPE* (the official magazine of the Society of Hispanic Professional Engineers), Winter 2000, and in *IEEE Potentials* (August/September 1996).

1994

Marie desJardins. “Knowledge acquisition techniques for a military planning system.” In *Proceedings of the 6th International Conference on Tools with AI*, New Orleans, November 6-9, 1994. IEEE Computer Society Press.

Marie desJardins. “The use of relevance to evaluate learning biases.” In *Working Notes of the AAAI Fall Symposium on Relevance*, New Orleans, November 4-6, 1994. Published as a AAAI Technical Report.

Marie A. Bienkowski and Marie E. desJardins. “Planning-based integrated decision support systems.” In *Proceedings of the Second International Conference on AI Planning Systems*, pp. 196-201, Morgan Kaufmann, 1994.

Marie desJardins. “Evaluation of learning biases using probabilistic domain knowledge.” In Stephen Jose Hanson, Thomas Petsche, Michael Kearns, and Ronald L. Rivest, eds., *Computational Learning Theory and Natural Learning Systems*, Vol. 2 (ch. 7, pp. 95-112), MIT Press, 1994.

Roberto V. Desimone and Marie E. desJardins. “The application of uncertain reasoning during battle planning.” In *Proceedings of the Symposium on Command and Control Research and Decision Aids*, 1994.

Marie desJardins, “Knowledge development methods for planning systems.” In *Working Notes of the AAAI Fall Symposium on Planning and Learning*, New Orleans, November 1994, AAAI Press Technical Report.

1993

Marie desJardins. "Representing and reasoning with probabilistic knowledge: A Bayesian approach." In *Proceedings of the Ninth Conference on Uncertainty in AI* (poster presentation), Washington, D.C., July 1993, Morgan Kaufmann.

Marie desJardins. "An integrated architecture for autonomous intelligent agents." In *Working Notes of the AAAI Workshop on Learning Action Models*, Washington, D.C., July 1993. Published as a AAAI Technical Report.

Roberto Desimone, David E. Wilkins, Marie Bienkowski, and Marie desJardins. "SOCAP: Lessons learned in automating military operations planning." In *Proceedings of the Sixth International Conference on Industrial and Engineering Applications of AI and Expert Systems*, Edinburgh, Scotland, June, 1993.

Marie desJardins and Denise Güler. "Machine learning-based adaptive training systems." In *Working Notes of the AI in Education Workshop on Collaborative Problem Solving*, Edinburgh, Scotland, 1993.

Marie desJardins, *Dissertation Abstract: PAGODA: A Model for Autonomous Learning in Probabilistic Domains. AI Magazine*, Spring 1993, 75–76.

1992

Marie desJardins. *PAGODA: A Model for Autonomous Learning in Probabilistic Domains*. Ph.D. dissertation, University of California, Berkeley, 1992. Also published as UC Berkeley Technical Report No. UCB/CSD 92/678.

Marie desJardins. "Goal-directed learning: A decision-theoretic model for deciding what to learn next." In *Proceedings of the Machine Discovery Workshop*, Aberdeen, Scotland, 1992.

1991

Marie desJardins. "Probabilistic evaluation of bias for learning systems." In *Proceedings of the Eighth International Workshop on Machine Learning*, pp. 495-499, Evanston, Illinois, Morgan Kaufmann, 1991.

ADDITIONAL INVITED LECTURES

2008

- "Organizational Learning via Network Adaptation in Multi-Agent Systems," Rutgers University, April 22, 2008.
- "Heuristic Search and Information Visualization Methods for School Redistricting," North Carolina State University, April 15, 2008.
- "Organizational Learning via Network Adaptation in Multi-Agent Systems," Harvard University AI Research Group Seminar Series, April 9, 2008.
- "Heuristic Search and Information Visualization Methods for School Redistricting," George Mason University GRAND Seminar Series, April 1, 2008.
- Plenary session speaker, *AAAI Spring Symposium on AI Education*, March 27, 2008.
- "Multiagent Communities: Trust, Networking, and Swarms," Colorado State University (guest lecture in CS 540, "Artificial Intelligence"), March 24, 2008.
- "Approaches to Modeling and Learning User Preferences," SRI International, March 10, 2008.
- "Heuristic Search and Information Visualization Methods for School Redistricting," City University of New York Graduate Center, February 29, 2008.
- "Multiagent Communities: Trust, Networking, and Swarms," Brooklyn College, February 28, 2008.
- "Bayesian Network Learning with Abstraction Hierarchies and Context-Specific Independence," Georgetown University, February 22, 2008.

2007

- "AI and Memory," UMBC Honors Forum, November 5, 2007 (invited).
- Panel presentation on "Balancing Work and Family" at the Faculty Horizons Workshop, UMBC, July 14, 2007.

2006

- "Heuristic Search and Information Visualization Methods for School Redistricting," CMSC 201H Guest Lecture, November 15, 2006.
- "Towards Transparent Machine Learning: Beyond Black Boxes," Lockheed Martin / Advanced Technologies Laboratory Speaker Series, Cherry Hill, NJ, October 12, 2006.

- “Modeling and Learning User Preferences for Sets of Objects,” Machine Learning: Theory, Applications, Experiences: A Workshop for Women in Machine Learning, collocated with the Grace Hopper Celebration of Women in Computing, San Diego, CA, October 4, 2006. (Invited speaker and panelist.)
- “AI and Nature,” UMBC Honors Forum, September 18, 2006.
- “Persistence, Perseverance, and Handling Rejection,” panel presentation at the Faculty Horizons Workshop, UMBC, July 15, 2006.
- “Agent-Organized Networks for Dynamic Team Formation,” SRI International, July 6, 2006.
- “Agent-Organized Networks for Dynamic Team Formation,” MITRE Survey of Current and Future Development of Intelligent Agent Software, May 22, 2006.
- “Incorporating Feature Hierarchies into Bayesian Network Learning,” UMBC CSEE Research Review, May 5, 2006.
- “Bayesian Network Learning with Abstraction Hierarchies and Context-Specific Independence,” Colorado State University, March 24, 2006.

2005

- “Machine Learning,” University of Maryland, College Park, guest lecture in CMSC 421, November 22, 2005.
- “Artificial Intelligence: Fact or Fiction?” UMBC Honors Forum, November 14, 2005.
- “Incorporating Feature Hierarchies into Bayesian Network Learning,” University of Alberta Artificial Intelligence Seminar Series, Edmonton, Canada, October 14, 2005.
- “First-Order Logic Inference,” University of Maryland, College Park, guest lecture in CMSC 421, October 11, 2005.
- “Constrained clustering with feature-relevance annotations,” Computer Science Seminar Series, Rutgers University, February 7, 2005.
- “Presenting Your Research: Papers, Presentations, and People,” Rutgers Laboratory for Real-Life Reinforcement Learning, February 7, 2005.

2004

- “Presenting Your Research: Papers, Presentations, and People,” University of Maryland College Park Lyceum Dinner Series, sponsored by the UMCP Graduate Student Services Network, December 3, 2004.
- “Adapting Network Structures for Efficient Team Formation,” Computer Science Seminar Series, Bryn Mawr College, November 5, 2004.
- “IS vs. CS,” UMBC CWIT Seminar Series, November 3, 2004.
- “Artificial Intelligence: Fact or Fiction?” UMBC Family Weekend, October 23, 2004.
- “How to Publish Scholarly Papers and Present Your Work,” UMBC Graduate Student Success Seminar, October 20, 2004.
- “Communication for Intelligent Agents: A Research Case Study,” CMSC 201H Guest Lecture, October 20, 2004.

2002

- “Research Directions in Interactive AI,” Mitsubishi Electric Research Laboratory, Cambridge, MA, November 14, 2002.
- “Communication-Sensitive Decision Making in Multi-Agent, Real-Time Environments,” Vanderbilt University, Nashville, TN, October 30, 2002.
- “Interactive Planning and Scheduling at UMBC,” Naval Research Laboratory, Arlington, VA, September 26, 2002.
- “Communication-Sensitive Decision Making in Multi-Agent, Real-Time Environments,” Information Sciences Institute, Marina del Rey, CA, April 26, 2002.
- “Communication-Sensitive Decision Making for Multi-Agent Systems,” NASA-Ames, Mt. View, CA, March 28, 2002.
- “Using Feature Hierarchies in Bayesian Network Learning,” Institute for the Study of Learning and Expertise (ISLE), Stanford, CA, March 28, 2002.
- “Using Feature Hierarchies in Bayesian Network Learning,” SRI International, Menlo Park, CA, March 27, 2002.

- “Communication-Sensitive Decision Making for Multi-Agent systems,” AAAI-2002 Spring Symposium on Intelligent Distributed and Embedded Systems, Stanford, CA, March 25-27, 2002.

2001

- “Using Feature Hierarchies in Bayesian Network Learning,” UMD College Park, CMSC 726 (Machine Learning, Dr. Reggia), November 2001.
- “Communication for Intelligent Agents: A Research Case Study,” UMBC, CMSC 201H (Computer Science I for Majors, Ms. Bogar), November 2001.
- “Communication-Sensitive Decision Making: A Research Case Study,” UMBC, CMSC 691B (Engineering Multi-Agent Systems, Dr. Cost), October 2001.
- “Communication-Sensitive Decision Making in Multi-Agent Systems,” George Mason University, October 2001.
- “Communication-Sensitive Decision Making in Multi-Agent Systems,” UMBC graduate colloquium, August 2001.

2000 and earlier

- “Model-Based Visualization,” NASA-Ames AI Research Center, December 2000.
- “Model-Based Visualization,” UMBC Dept. of CSEE, October 2000.
- “Distributed Planning and Information Management,” Armed Forces Communications and Electronics Association Professional Development Seminar on Highly Mobile Tactical Operations Centers, Ft. Monmouth, NJ, February 1999.
- “PAGODA: A Model for Autonomous Learning in Probabilistic Domains,” Stanford University, October 1995; Mills College, Oakland, CA, February 1994; Computer Science Department Seminar, UC Berkeley, February 1992; NASA Ames AI Research Lab, Moffett Field, CA, September, 1991.
- “Representing and Reasoning with Probabilistic Knowledge in an Inductive Learning System,” Stanford University, November 1994.
- “The Operator Learner: An Architecture for Learning Planning Knowledge,” University of Massachusetts, October 1994; Carnegie Mellon University, October 1994; Mills College, October 1994; NASA Ames AI Research Lab, Moffett Field, CA, September, 1992.
- “Adaptive Training Systems: Modeling a Student Using Machine Learning Techniques,” University of Massachusetts, October 1994.
- “Goal-Directed Learning in Autonomous Intelligent Agents,” Stanford University AI Seminar Series, February 1994; UC Berkeley AI Seminar Series, November 1993.
- “How to Do Graduate Research,” WICSE Conference on Women in Engineering: Panel on The Graduate Experience: What to Expect, UC Berkeley, October 1993.

HONORS

- NASA Tech Brief Award, February 2008.
- Senior Member of the Association for Computing Machinery, 2006.
- NSF CAREER Award, 2006.
- Nominated for the First Annual UR Great Award (UMBC Graduate Student Association Recognition for Graduate Research and Educational Advisor or Teacher Award), May 2004.
- ACM Recognition of Service Award, November 2003.
- NASA Graduate Researchers Program Fellowship, 1987–1990.
- Outstanding Service Award, Student Musical Activities–Vocal, UC Berkeley, 1990.
- NSF Graduate Fellowship Honorary Mention, 1985.
- Harvard College Fellowship, 1981–1985.
- Danforth Teaching Award, Harvard University, 1984.

ADDITIONAL ACTIVITIES AND COMMUNITY SERVICE

- Gifted & Talented Parent Representative, Lime Kiln Middle School, 2007–present.
- Troop leader (Junior Troop 1022), Girl Scouts of Central Maryland, 2007–present.
- School volunteer, Fulton Elementary School, Lime Kiln Middle School, and Reservoir High School, 2001–present.
- School Boundary Line Committee, Howard County, Maryland, 2003.
- Board of Directors, Peninsula Women’s Chorus, 1999-2001.
- Board of Directors, Children’s Center of the Stanford Community, 1998-2001.
- Newsletter Editor, Children’s Center of the Stanford Community, 1995-2001.
- Newsletter Editor, Peninsula Women’s Chorus, 1998-2001.
- Manager, Perfect Fifth Chamber Choir, UC Berkeley, 1987-1989.

AFFILIATIONS

- UMBC Bioinformatics Research Center.
- University of Maryland Institute for Advanced Computing Studies (2003–2009).
- UMBC Center for Women and Information Technology (internal board member).
- UMBC Graduate Faculty (regular member).
- Association for the Advancement of Artificial Intelligence (former councillor).
- Association for Computing Machinery (former SIGART Vice-Chair).
- American Association of University Women.
- American Civil Liberties Union.