

# Matthew Edmund Taylor

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## EDUCATION

- **The University of Texas**, Austin, TX. September 2003 – August 2008.  
Ph.D., Department of Computer Sciences  
*Dissertation*: Autonomous Inter-Task Transfer in Reinforcement Learning Domains  
*Thesis Committee*: P. Stone (chair), R. Miikkulainen, R. J. Mooney, B. Porter, and R. S. Sutton
- **Amherst College**, Amherst, MA. September 1997 – May 2001.  
A.B., *magna cum laude* in Computer Science and Physics with distinction

## APPOINTMENTS

- **The University of Southern California**, Summer 2008 – present.  
*Postdoctoral Research Associate* in the Department of Computer Science with Prof. Milind Tambe.  
Responsibilities include supervising students, directing research projects, and writing grants.
- **The University of Texas at Austin**, Autumn 2004 – Summer 2008.  
*Research Assistant* in the Department of Computer Sciences with Prof. Peter Stone.
- **Cycorp**, Summer 2006.  
*Research Intern* with Dr. Michael Witbrock. Implemented machine learning techniques to solve novel problems within Cyc, a large cognitive architecture.
- **Epic Systems Corporation**, Summer 2001 – Summer 2003.  
*Software Developer* and *Lead Software Developer* for medical applications used worldwide. Defined, developed, tested, and documented new product features.
- **Microsoft**, Summer 2000.  
*Software Developer Intern* in the Microsoft Office group. Designed and added features to a C++ code base for client/server and server/server interactions.
- **NSF Funded Research Experience for Undergraduates**, Summer 1999.  
*Physics Research Intern* at The University of Nebraska, Lincoln. Worked with Prof. Robert Hilborn experimentally testing the symmetrization postulate via diode laser absorption spectroscopy.

## HONORS

- **Honorable Mention** for the NSF CIFellows Project (waitlisted). Spring 2009.
- **Honorable Mention** for the IFAAMAS-08 Victor Lesser Distinguished Dissertation Award (runner up). Spring 2009.
- **Nominated** by department for the ACM Doctoral Dissertation Award. Autumn 2008.  
Department limited to one nominee.
- **Finalist** for Best Student Paper at AAMAS-07. Spring 2007.
- **Nominated** for UT-Austin's William S. Livingston Outstanding Graduate Student Academic Employee Award: Graduate Research Assistant. Spring 2007. Department limited to one nominee.
- **Best Paper Award**, Genetic and Evolutionary Computation Conference, GA Track. Summer 2006.
- **MCD Fellowship**, UT-Austin's Department of Computer Sciences. Autumn 2003 – Summer 2004.
- **Dean's Excellence Award**, UT-Austin's College of Natural Sciences. Autumn 2003.
- **Sigma Xi**, Awarded for research completed in a senior thesis at Amherst College. Spring 2001.  
Physics Department: *Exploring Chaos with Neural Networks*.
- **NSF/STEMTEC Teaching Fellowship**. Autumn 1998.

## SELECTED PUBLICATIONS

Publications are available and cross-listed by *type*, *date*, and *topic* at:

<http://teamcore.usc.edu/taylorm/>

### Books

2. Matthew E. Taylor and Karl Tuyls, editors, *Adaptive Agents and Multi-Agent Systems IV*, Lecture Notes in Computer Science, volume 5924, Springer-Verlag, Berlin, 2010.
1. Matthew E. Taylor. *Transfer in Reinforcement Learning Domains*. Studies in Computational Intelligence, volume 216, Springer-Verlag, Berlin, 2009. ISBN: 978-3-642-01881-7.

### Ph.D. Dissertation

1. Matthew E. Taylor. *Autonomous Inter-Task Transfer in Reinforcement Learning Domains*. Department of Computer Sciences, The University of Texas at Austin, August 2008. Also available as Technical Report UT-AI-TR-08-5.

### Journal Articles

5. Matthew E. Taylor, Chris Kiekintveld, Craig Western, and Milind Tambe. *A Framework for Evaluating Deployed Security Systems: Is There a Chink in your ARMOR?* **Informatica**, 2010. To Appear.
4. Matthew E. Taylor and Peter Stone. *Transfer Learning for Reinforcement Learning Domains: A Survey*. **Journal of Machine Learning Research**, 10(1): 1633–1685, 2009.
3. Shimon Whiteson, Matthew E. Taylor and Peter Stone. *Critical Factors in the Empirical Performance of Temporal Difference and Evolutionary Methods for Reinforcement Learning*. **Journal of Autonomous Agents and Multi-Agent Systems**, online July 17, 2009 with Springer DOI 10.1007/s10458-009-9100-2. Print version to appear.
2. Matthew E. Taylor, Peter Stone, and Yaxin Liu. *Transfer Learning via Inter-Task Mappings for Temporal Difference Learning*. **Journal of Machine Learning Research**, 8(1):2125–2167, 2007.
1. Shimon Whiteson, Matthew E. Taylor, and Peter Stone. *Empirical studies in action selection for reinforcement learning*. **Adaptive Behavior**, 15(1):33–50, 2007.

### Book Chapters

2. Marc Ponsen, Matthew E. Taylor, Karl Tuyls. *Abstraction and Generalization in Reinforcement Learning*. In Matthew E. Taylor and Karl Tuyls, editors, *Adaptive Agents and Multi-Agent Systems IV*, Lecture Notes in Computer Science, volume 5924, Springer-Verlag, 2010. To Appear.
1. Peter Stone, Gregory Kuhlmann, Matthew E. Taylor, and Yaxin Liu. *Keepaway soccer: From machine learning testbed to benchmark*. In Itsuki Noda, Adam Jacoff, Ansgar Bredendfeld, and Yasutake Takahashi, editors, *RoboCup-2005: Robot Soccer World Cup IX*, volume 4020, pages 93–105. Springer-Verlag, Berlin, 2006. 28% acceptance rate at **RoboCup-2005**.

### Refereed Conference Papers

17. Matthew E. Taylor, Manish Jain, Yanquin Jin, Makoto Yoko, and Milind Tambe. *When Should There be a “Me” in “Team”?* *Distributed Multi-Agent Optimization Under Uncertainty*. In Proceedings of the Ninth International Joint Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), May 2010. 24% acceptance rate.
16. Pradeep Varakantham, Jun-young Kwak, Matthew E. Taylor, Janusz Marecki, Paul Scerri, and Milind Tambe. *Exploiting Coordination Locales in Distributed POMDPs via Social Model Shaping*. In Proceedings of the Nineteenth International Conference on Automated Planning and Scheduling (**ICAPS**), September 2009. 34% acceptance rate.

15. Manish Jain, Matthew E. Taylor, Makoto Yooko, and Milind Tambe. *DCOPs Meet the Real World: Exploring Unknown Reward Matrices with Applications to Mobile Sensor Networks*. In Proceedings of the Twenty-First International Joint Conference on Artificial Intelligence (**IJCAI**), July 2009. 26% acceptance rate.
14. Katherine K. Coons, Behnam Robatmili, Matthew E. Taylor, Bertrand A. Maher, Kathryn McKinley, and Doug Burger. *Feature Selection and Policy Optimization for Distributed Instruction Placement Using Reinforcement Learning*. In Proceedings of the Seventh International Joint Conference on Parallel Architectures and Compilation Techniques (**PACT**), October 2008. 19% acceptance rate.
13. Matthew E. Taylor, Nicholas K. Jong, and Peter Stone. *Transferring Instances for Model-Based Reinforcement Learning*. In Proceedings of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (**ECML PKDD**), September 2008. 19% acceptance rate.
12. Matthew E. Taylor, Gregory Kuhlmann, and Peter Stone. *Autonomous Transfer for Reinforcement Learning*. In Proceedings of the Seventh International Joint Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), May 2008. 22% acceptance rate.
11. Matthew E. Taylor, Gregory Kuhlmann, and Peter Stone. *Transfer Learning and Intelligence: an Argument and Approach*. In Proceedings of the First Conference on Artificial General Intelligence (**AGI**), March 2008. 50% acceptance rate.
10. Matthew E. Taylor, Shimon Whiteson, and Peter Stone. *Temporal Difference and Policy Search Methods for Reinforcement Learning: An Empirical Comparison*. In Proceedings of the Twenty-Second Conference on Artificial Intelligence (**AAAI**), Nectar Track, July 2007. 38% acceptance rate.
9. Matthew E. Taylor and Peter Stone. *Cross-Domain Transfer for Reinforcement Learning*. In Proceedings of the Twenty-Fourth International Conference on Machine Learning (**ICML**), June 2007. 29% acceptance rate.
8. Matthew E. Taylor, Shimon Whiteson, and Peter Stone. *Transfer via Inter-Task Mappings in Policy Search Reinforcement Learning*. In Proceedings of the Sixth International Joint Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), May 2007. 22% acceptance rate.
7. Mazda Ahmadi, Matthew E. Taylor, and Peter Stone. *IFSA: Incremental Feature-Set Augmentation for Reinforcement Learning Tasks*. In Proceedings of the Sixth International Joint Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), May 2007. 22% acceptance rate.  
**Finalist for Best Student Paper.**
6. Matthew E. Taylor and Peter Stone. *Towards Reinforcement Learning Representation Transfer*. In Proceedings of the Sixth International Joint Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), poster presentation, May 2007. 22% acceptance rate, additional 25% for posters.
5. Matthew E. Taylor, Cynthia Matuszek, Pace Reagan, and Michael Witbrock. *Guiding Inference with Policy Search Reinforcement Learning*. In Proceedings of the Twentieth International FLAIRS Conference (**FLAIRS**), May 2007. 52% acceptance rate.
4. Matthew E. Taylor, Cynthia Matuszek, Bryan Klimt, and Michael Witbrock. *Autonomous Classification of Knowledge into an Ontology*. In Proceedings of the Twentieth International FLAIRS Conference (**FLAIRS**), May 2007. 52% acceptance rate.
3. Matthew E. Taylor, Shimon Whiteson, and Peter Stone. *Comparing Evolutionary and Temporal Difference Methods for Reinforcement Learning*. In Proceedings of the Genetic and Evolutionary Computation Conference (**GECCO**), July 2006. 46% acceptance rate, 85 submissions to GA track.  
**Best Paper Award, Genetic Algorithms Track.**
2. Matthew E. Taylor, Peter Stone, and Yaxin Liu. *Value Functions for RL-Based Behavior Transfer: A Comparative Study*. In Proceedings of the Twentieth National Conference on Artificial Intelligence (**AAAI**), July 2005. 18% acceptance rate.

1. Matthew E. Taylor and Peter Stone. *Behavior Transfer for Value-Function-Based Reinforcement Learning*. In Proceedings of the Fourth International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), July 2005. 25% acceptance rate.

### Refereed Workshop and Refereed Symposium Papers

16. Jason Tsai, Emma Bowring, Shira Epstein, Natalie Fridman, Prakhar Garg, Gal Kaminka, Andrew Ogden, Milind Tambe, and Matthew E. Taylor. *Agent-based Evacuation Modeling: Simulating the Los Angeles International Airport*. 2009 Workshop on Emergency Management: Incident, Resource, and Supply Chain Management, November 2009.

15. Matthew E. Taylor, Manish Jain, Prateek Tandon, and Milind Tambe. *Using DCOPs to Balance Exploration and Exploitation in Time-Critical Domains*. In IJCAI 2009 Workshop on Distributed Constraint Reasoning, July 2009.

14. Matthew E. Taylor, Chris Kiekintveld, Craig Western, and Milind Tambe. *Is There a Chink in Your ARMOR? Towards Robust Evaluations for Deployed Security Systems*. In IJCAI 2009 Workshop on Quantitative Risk Analysis for Security Applications, July 2009.

13. Matthew E. Taylor and Peter Stone. *Categorizing Transfer for Reinforcement Learning*. In Multidisciplinary Symposium on Reinforcement Learning, poster presentation, June 2009.

12. Shimon Whiteson, Brian Tanner, Matthew E. Taylor, and Peter Stone. *Generalized Domains for Empirical Evaluations in Reinforcement Learning*. In ICML 2009 Workshop on Evaluation Methods for Machine Learning, June 2009.

11. Matthew E. Taylor, Chris Kiekintveld, Craig Western, and Milind Tambe. *Beyond Runtimes and Optimality: Challenges and Opportunities in Evaluating Deployed Security Systems*. In AAMAS 2009 Workshop on Agent Design: Advancing from Practice to Theory, May 2009.

10. Manish Jain, Matthew E. Taylor, Makoto Yoko, and Milind Tambe. *DCOPs Meet the Real World: Exploring Unknown Reward Matrices*. In AAMAS 2009 Workshop on Agent Technology for Sensor Networks, May 2009.

9. Jun-young Kwak, Pradeep Varakantham, Matthew E. Taylor, Janusz Marecki, Paul Scerri, and Milind Tambe. *Exploiting Coordination Locales in Distributed POMDPs via Social Model Shaping*. In AAMAS 2009 Workshop on Multi-agent Sequential Decision-Making in Uncertain Domains, May 2009.

8. Matthew E. Taylor. *Assisting Transfer-Enabled Machine Learning Algorithms: Leveraging Human Knowledge for Curriculum Design*. In AAI 2009 Spring Symposium on Agents that Learn from Human Teachers, March 2009.

7. Matthew E. Taylor, Nicholas K. Jong, and Peter Stone. *Transferring Instances for Model-Based Reinforcement Learning*. In AAMAS 2008 Workshop on Adaptive Learning Agents and Multi-Agent Systems, May 2008.

6. Matthew E. Taylor, Katherine E. Coons, Behnam Robatmili, Doug Burger, and Kathryn S. McKinley. *Policy Search Optimization for Spatial Path Planning*. In NIPS 2007 Workshop on Machine Learning for Systems Problems, poster presentation, December 2007.

5. Matthew E. Taylor and Peter Stone. *Representation Transfer for Reinforcement Learning*. In AAI 2007 Fall Symposium on Computational Approaches to Representation Change during Learning and Development, November 2007.

4. Matthew E. Taylor, Gregory Kuhlmann, and Peter Stone. *Accelerating Search with Transferred Heuristics*. In ICAPS 2007 Workshop on AI Planning and Learning, poster presentation, September 2007.

3. Shimon Whiteson, Matthew E. Taylor and Peter Stone. *Adaptive Tile Coding for Reinforcement Learning*. In NIPS 2006 Workshop: Towards a New Reinforcement Learning?, poster, December 2006.

2. Matthew E. Taylor, Shimon Whiteson, and Peter Stone. *Transfer learning for Policy Search Methods*. In ICML 2006 Workshop on Structural Knowledge Transfer for Machine Learning, poster presentation, June 2006.

1. Matthew E. Taylor, and Peter Stone. *Speeding up Reinforcement Learning with Behavior Transfer*. In AAAI 2004 Fall Symposium on Real-life Reinforcement Learning, October 2004.

### Unrefereed Publication

1. Shimon Whiteson, Matthew E. Taylor and Peter Stone. *Adaptive Tile Coding for Value Function Approximation*. Technical Report AI-TR-07-339, University of Texas at Austin, 2007.

### CONFERENCE PRESENTATIONS

- “Artificial Intelligence Methods for Risk Management and Analysis”
  - **Risk Analysis Symposium**, Sante Fe, NM. Talk based on submitted abstract. April 2009.
- “Transferring Instances for Model-Based Reinforcement Learning”
  - **ECML-PKDD**, Antwerp, Belgium, September 2008.
- “Autonomous Transfer for Reinforcement Learning”
  - **AAMAS**, Estoril, Portugal, May 2008.
- “Transfer Learning and Intelligence: an Argument and Approach”
  - **AGI**, Memphis, TN, March 2008.
- “Temporal Difference and Policy Search Methods for Reinforcement Learning: An Empirical Comparison”
  - **AAAI**, Vancouver, Canada, July 2007.
- “Cross-Domain Transfer for Reinforcement Learning”
  - **ICML**, Corvallis, OR, June 2007.
- “Transfer via Inter-Task Mappings in Policy Search Reinforcement Learning”
  - **AAMAS**, Honolulu, HI, May 2007.
- “Guiding Inference with Policy Search Reinforcement Learning”
  - **FLAIRS**, Key West, FL, May 2007.
- “Autonomous Classification of Knowledge into an Ontology”
  - **FLAIRS**, Key West, FL, May 2007.
- “Comparing Evolutionary and Temporal Difference Methods for Reinforcement Learning”
  - **GECCO**, Seattle, WA, July 2006.
- “Value functions for RL-Based Behavior Transfer: A Comparative Study”
  - **AAAI**, Pittsburgh, PA, July 2005.
- “Behavior Transfer for Value-Function-Based Reinforcement Learning”
  - **AAMAS**, Utrecht, The Netherlands, July 2005.

**TEACHING**

- **Assistant Instructor** at The University of Texas at Austin for *Software Systems: Unix*. Autumn 2007 (39 students) and Spring 2008 (27 students).
  - Sole instructor for class designed to quickly familiarize students with Unix/Linux.
  - Overall student evaluation: 4.4/5.0 for both semesters.
- **Tutorials**
  - *Transfer Learning and other RL Speed-up Techniques* at AAMAS. May 2010. Co-taught with Dr. Alessandro Lazaric. Part of a 1-day tutorial on RL.
  - *Transfer Learning for Reinforcement Learning Domains* at ECML. September 2009. Co-taught with Dr. Alessandro Lazaric.
  - *Transfer Learning in Reinforcement Learning* at AAMAS. May 2009. Co-taught with Dr. Alessandro Lazaric. Part of a 1.5-day tutorial on RL.
- **Guest Lectures**
  - *Single- and Multi-agent Reinforcement Learning*, CS543 with Dr. Rajiv Maheswaran: Software Multiagent Systems, The University of Southern California. November 2009.
  - *Transfer for Reinforcement Learning*, CS599 with Prof. Fei Sha: Selected Topics in Machine Learning, The University of Southern California. April 2009.
  - *RoboCup, Robots, and Reinforcement Learning*, CS543 with Prof. Milind Tambe: Software Multiagent Systems, The University of Southern California. April 2009.
  - *Artificial Intelligence and Security*, Freshman Geography with Ms. Caitlin Ferguson. The Port of Los Angeles High School. March 2009.
  - *An Overview of Agent and Multiagent Learning*, CS499 with Prof. Milind Tambe: Intelligent Agents and Science Fiction, The University of Southern California. November 2008.
- **Teaching Assistant**
  - *The University of Texas at Austin*: Computer Fluency with Prof. Bruce Porter. Autumn 2005. Discussion leader, grader, and occasional class lecturer. Overall student evaluation: 4.3/5.0.
  - *Amherst College*: TA (and tutor) for undergraduate courses in computer science and physics. Spring 1998 – Autumn 2000.
- **Volunteer**
  - *San Juan Diego Catholic High School*, Austin TX. Spring 2007. Assisted running labs in a senior physics course and updating the school computer lab.
  - *First Bytes* program at The University of Texas at Austin. July 2004. Assisted running a computer lab in a program to attract high school women to computer science.
- **Teacher and Academic Director** at American Computer Experience Computer Camp. Summers of 1996, 1997, and 1998.
  - National summer camp for students agent 8–16

**STUDENTS SUPERVISED** (A \* indicates a shared publication resulted from our collaboration.)

- Shira Epstein\*, University Southern California undergraduate. Autumn 2009 – present.
- Yanquin Jin\*, Tsinghua University undergraduate (visiting summer student). Summer 2009.
- My Luc, University of Texas at Austin undergraduate. Spring 2008.
- Andrew Ogden\*, University Southern California undergraduate. Autumn 2009 – present.
- Jagrut Sharma, University Southern California M.S. Autumn 2008 – present.
- Prateek Tandon\*, University Southern California undergraduate. Autumn 2008 – present.

Co-advised with Peter Stone

- Samuel Barrett, University of Texas at Austin Ph.D. Autumn 2008 – Spring 2009.

Co-advised with Milind Tambe

- Scott Alfeld, University Southern California Ph.D. Autumn 2009 – present.
- Manish Jain\*, University Southern California Ph.D. Autumn 2008 – Summer 2009.
- Jun-young Kwak\*, University Southern California Ph.D. Autumn 2008 – present.
- Rong Yang, University Southern California Ph.D. Autumn 2009 – present.

**GRANTS WON**

- Multi Agent Autonomous Reasoning System (MAARS) for Satellite Defense. Perceptronics Solutions Inc., Milind Tambe, and Paul Scerri. DARPA, SB093-006. Submitted September 2009. \$27,500 awarded to Dr. Tambe's lab for six month contract (Phase I).
- Distributed Automated Planning System (DAPS) for a Dynamic Collection of Heterogeneous Manned and Unmanned Entities. Perceptronics Solutions Inc., Milind Tambe, and Paul Scerri. Army, A08-092. Submitted April 2009. \$170,000 awarded to Dr. Tambe's lab for two year contract (Phase II).

**PROPOSALS SUBMITTED**

- Multi-agent Optimization Under Uncertainty. Milind Tambe. NSF 09-557. Submitted December 2009.
- Interactive Transfer Learning: Enabling Humans to Efficiently Teach Robots. Sonia Chernova and Milind Tambe. NSF 09-557. Submitted December 2009.
- Development of a Scripted Agent Based Microsimulation for Terrorism Interdiction and Emergency Response. Anthony Green and Milind Tambe. Department of Homeland Security, DHS-09-ST-108-001. September 2009.
- User Model-Informed Dynamic Adjustable Autonomy. Milind Tambe and Maja J. Matarić. National Science Foundation, NSF 08-611 (Cyber-Physical Systems). February 2009.
- Multi-Modal Human-Machine Interaction and User Modeling for Adjustable Autonomy. Maja J. Matarić and Milind Tambe. Office of Naval Research, BAA 09-008. January 2009.

**INVITED TALKS and COLLOQUIA**

- "Balancing Multi-agent Exploration and Exploitation in Time-Critical Domains"
  - **University of Texas at Austin**, Austin, TX. Forum for Artificial Intelligence. May 2009.
- "[Towards] Autonomous Inter-Task Transfer in Reinforcement Learning Domains"
  - **Lockheed Martin Advanced Technology Laboratories**, Cherry Hill, NJ. Advanced Technology Seminar. December 2008.
  - **University of Southern California**, Los Angeles, CA. Departmental Seminar. June 2008.
  - **Carnegie Mellon University**, Pittsburgh, PA. Manuela Veloso's group meeting. April 2008.
  - **University of Wisconsin**, Madison, WI. Artificial Intelligence Seminar. October 2007.
  - **University of Washington**, Seattle, WA. Pedro Domingos's group meeting. October 2007.
  - **Microsoft Research**, Redmond, WA. Machine Learning Reading Group. October 2007.
  - **Harvard University**, Cambridge, MA. AI Research Series. September 2007.
  - **Massachusetts Institute of Technology**, Cambridge, MA. Nick Roy's and Leslie Pack Kaelbling's group meeting. Sept. 2007.
  - **Brown University**, Providence, RI. Seminar. September 2007.
  - **University of Alberta**, Edmonton, CA. Artificial Intelligence Seminar Series. August 2007.
- "Faster Inference through Reinforcement Learning"
  - **Cycorp**, Austin, TX. Seminar. August 2006.
- "Speeding up Reinforcement Learning via Behavior Transfer"
  - **Amherst College**, Amherst, MA. Departmental Colloquium. September 2005.
  - **The University of Massachusetts at Amherst**, Amherst, MA. Machine Learning and Friends Lunch. September 2005.
  - **Stanford**, Stanford, CA. Pat Langley's group meeting. June 2005.

## PROFESSIONAL ACTIVITIES

- **Event coordination**
  - Co-Chair
    - \* AAAI 2008 workshop — *Transfer Learning for Complex Tasks*.
    - \* AAMAS 2009 workshop — *Adaptive and Learning Agents*.
    - \* AAMAS 2010 workshop — *Adaptive and Learning Agents*.
  - Organizing Committee
    - \* AAMAS 2010 workshop — *Agents Learning Interactively from Human Teachers*.
  - Publicity Chair
    - \* ICML 2009 workshop — *The Annual Reinforcement Learning Competition*.
  - Technical Program Committee
    - \* ICML 2008 workshop — *The Annual Reinforcement Learning Competition*.
- **Journal reviewer**
  - Adaptive Behavior (**AB**). 2009.
  - Advances in Complex Systems (**ACS**). 2009.
  - Artificial Intelligence Journal (**AIJ**). 2007, 2008, 2009.
  - International Journal of Agent Technologies and Systems (**IJATS**). 2008.
  - Journal of Autonomous Agents and Multi-Agent Systems (**JAAMAS**). 2008, 2009.
  - Journal of Artificial Intelligence Research (**JAIR**). 2007.
  - Journal of Machine Learning Research (**JMLR**). 2009.
  - Machine Learning Journal (**MLJ**). 2007.
- **Conference program committee / reviewer**
  - International Joint Conf. on Autonomous Agents & Multiagent System (**AAMAS**). 2009, 2010.
  - AAAI Conference on Artificial Intelligence (**AAAI**). 2010.
  - Conference of the Spanish Association for Artificial Intelligence (**CAEPIA**). 2007.
  - European Conference on Machine Learning (**ECML**). 2007.
  - International Conference on Machine Learning (**ICML**). 2008, 2009, 2010.
  - International Joint Conference on Artificial Intelligence (**IJCAI**). 2007, 2009.
  - International Semantic Web Conference (**ISWC**). 2007
  - Neural Information Processing Systems (**NIPS**). 2008, 2009.
- **Workshop program committee**
  - AAMAS 2008 workshop — *Adaptive Learning Agents and Multi-Agent Systems*.
  - ICML 2006 workshop — *Structural Knowledge Transfer for Machine Learning*.
  - IJCAI 2009 workshop — *Quantitative Risk Analysis for Security Applications*.
- **Departmental service**
  - Organized the Transfer Learning Reading Group. 2007–08.
  - Graduate Student Faculty Recruiting Committee (selected by faculty for position). 2007.
  - Computer Sciences Space Committee. 2006.
  - Graduate Representative Association of Computer Sciences (elected position). 2004–05.
  - Founded and organized the Reinforcement Learning Reading Group. 2003–04.