

## Natalia Hernandez Gardiol

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### Academic Background

**Doctor of Philosophy** in Electrical Engineering and Computer Science ..... December 2007  
Massachusetts Institute of Technology  
Advisor: Leslie Pack Kaelbling

**Master of Science** in Electrical Engineering and Computer Science ..... February 2003  
Massachusetts Institute of Technology  
Advisor: Leslie Pack Kaelbling

**Bachelor of Science** in Computer Science and Engineering ..... December 1999  
Michigan State University, *with High Honors*  
Advisor: Sridhar Mahadevan

### Awards & Fellowships

**GE Fund Faculty for the Future Fellowship** Spring 2004.

**National Science Foundation Graduate Research Fellowship** 3-Year Fellowship, Fall 2000.

**Outstanding Undergraduate Research Award** Computing Research Association.  
Winner, December 1999.

**Professorial Assistantship** Michigan State University. 2-Year Grant, Spring 1995

**Spartan Scholarship** Michigan State University. 4-Year Scholarship, Spring 1995

### Papers

#### Refereed Conferences

- \* Natalia H. Gardiol and Leslie Pack Kaelbling. "Action-space partitioning for planning". In *National Conference on Artificial Intelligence (AAAI)*. Vancouver, Canada, 2007.
- Natalia H. Gardiol and Leslie Pack Kaelbling. "Computing action equivalences for planning". In *International Conference on Automated Planning and Scheduling, Doctoral Consortium*. Cumbria, UK, 2006.
- Natalia H. Gardiol and Leslie Pack Kaelbling. "Computing action equivalences for planning under time constraints". Technical Report MIT-CSAIL-TR-2006-022, MIT CS & AI Lab, Cambridge, MA, 2006.
- Natalia H. Gardiol and Leslie P. Kaelbling. "Envelope-based planning in relational MDPs". In *Advances in Neural Information Processing 16 (NIPS-2003)*. Vancouver, 2004.
- Sarah J. Finney, Natalia H. Gardiol, Leslie Pack Kaelbling, and Tim Oates. "The thing that we tried didn't work very well: Deictic representation in reinforcement learning". In *18th Int'l Conference on Uncertainty in Artificial Intelligence (UAI-02)*. Edmonton, 2002.
- Natalia H. Gardiol and Sridhar Mahadevan. "Hierarchical memory-based reinforcement learning". In *Advances in Neural Information Processing 13 (NIPS-2000)*. Denver, 2001.

## Master's Thesis

- \* Natalia H. Gardiol. *Applying Probabilistic Rules To Relational Worlds*. Master's thesis, MIT, Cambridge, MA, 2002.

## Technical Reports

- \* Sarah J. Finney, Natalia H. Gardiol, Leslie Pack Kaelbling, and Tim Oates. "Learning with deictic representations". Technical Report AIM-2002-006, MIT AI Lab, Cambridge, MA, 2002.  
Leslie Pack Kaelbling, Tim Oates, Natalia H. Gardiol, and Sarah J. Finney. "Learning in worlds with objects". In *Working Notes of the AAAI Stanford Spring Symposium on Learning Grounded Representations*. March 2001.

## Research Experience

- Research Assistant** ..... September 2000 - present  
Massachusetts Institute of Technology, AI Lab.  
Advisor: Leslie Pack Kaelbling.
- Research Assistant** ..... September 1998 - June 2000  
Michigan State University, CSE Dept, Autonomous Agents Lab.  
Advisor: Sridhar Mahadevan.
- Undergraduate Researcher** ..... May 1997 - December 1997  
Michigan State University, CSE Dept, Pattern Recognition and Image Processing Lab.  
Advisor: Anil Jain.
- Undergraduate Researcher** ..... September 1996 - May 1997  
Michigan State University, CSE Dept, GARAGE Lab.  
Advisor: Bill Punch.

## Industry Experience

- Engineering Co-operative Education Internship** ..... January 1998 - August 1998  
IBM Global Services, Southbury Connecticut.  
Advisor: Linda Yue.

## Teaching Experience

- Teaching Assistant** ..... Fall 2007  
Massachusetts Institute of Technology  
Course: Undergraduate-level introduction EE & CSs.
- Teaching Assistant** ..... Fall 2002  
Massachusetts Institute of Technology  
Course: Graduate-level introduction to Artificial Intelligence techniques.

## Professional Activities

- Journal Reviewing** Journal of Artificial Intelligence Research
- Conference Reviewing** Neural Information Processing Systems conference (NIPS) 2003, 2004; International Joint Conference on Artificial Intelligence (IJCAI) 2003, 2005; Robotics Science & Systems (RSS) 2005; New England Student Conference on Artificial Intelligence (NESCAI) 2007; International Conference on Machine Learning (ICML) 2007
- Society Memberships** Tau Beta Pi, American Association for Artificial Intelligence (AAAI).

## **Other Interests**

**MIT Cycling Team** Competed in Road, Mountain, Track, and Cyclocross disciplines. Collegiate National Cyclocross Championship team, 2006.

**MIT Outing Club** Led official Winter skiing, snowshoeing trips and Summer rock-climbing trips. Board of directors member and Skiing chair, 2003-2006.

**Wilderness First Aid** WFA and Advance WFA certified, 2003 and 2005.