

## Education

- 2010 **Brown University**, Ph.D. in Computer Science. Dissertation title: *Teaching Old Dogs New Tricks: Incremental Multimap Regression for Robot Learning from Demonstration* Committee members: O.C. Jenkins (Chair), T. Dean, M. Veloso, and D. Lee.
- 2005 **Brown University**, Sc.M in Computer Science. Project title: *Discovering natural kinds of robot sensory experiences in unstructured environments*. Advisor: O.C. Jenkins
- 2003 **Yale University**, B.S. in Electrical Engineering and Computer Science. Senior Project: *Glwys, the robotic rat*. Advisor: B. Scassellati.

## Employment

- Sep '09 - Present **EPFL**, Post-Doc, Supervisor: Aude Billard
- Jun '05 - Sep '05 **Fraunhofer-IPSI**, Ambiente Researcher, Supervisor: Carsten Magerkurth  
Developed hardware interfaces and description language for hybrid games.
- Jun '04 - Aug '04 **iRobot**, Software Engineer, Supervisor: Dr. Brian Yamauchi  
Assisted in the design and development of an autonomous robot.
- Jun '03 - Aug '03 **Microsoft**, Software Design Engineer, Supervisor: Gerry Cermak  
Developed P2P capabilities for Smart Personal Object Technologies.
- Jun '02 - Aug '02 **Microsoft Hardware**, Firmware Engineer, Supervisor: Mark Hanson  
Wrote firmware for wireless mouse receivers.
- Sep '01 - May '03 **Yale University Department of Computer Science**, Robotics Researcher  
Supervisor: Dr. Brian Scassellati  
Assisted in design and development of a humanoid robot.
- May '01 - Aug '01 **University of Edinburgh Division of Informatics**, Researcher  
Supervisor: Dr. Gillian Hayes  
Combined existing projects into a full gesture-guided robot system.
- May '00 - Jan '01 **Yale University Department of Computer Science**, Research and Design  
Supervisors: Drs. Paul Hudak, John Peterson, and Drew McDermott  
Developed autonomous robots in Haskell for the Robocup '99 competition.
- Sep '98 - May '99 **Weill Cornell Medical Center**, Researcher, Supervisor: Dr. William A. Muller  
Performed medical research into the causes of inflammation.
- Sep '97 - May '99 **New York Hall of Science**, Explainer, Supervisor: Dr. Alan J. Friedman  
Explained exhibits and demonstrated scientific principles to guests.

## Publications

### PhD Thesis

Daniel H Grollman. *Teaching Old Dogs New Tricks: Incremental Multimap Regression for Interactive Robot Learning from Demonstration*. PhD thesis, Brown University, May 2010.

### Book Chapters

Daniel H Grollman and Odest Chadwicke Jenkins. *From Motor to Interaction Learning in Robots*, chapter Can We Learn Finite State Machine Robot Controllers from Interactive Demonstration? Springer, 2009.

### Journal Articles

Daniel H. Grollman, Odest Chadwicke Jenkins, and Frank Wood. Discovering natural kinds of robot sensory experiences in unstructured environments. *Journal of Field Robotics*, 23(11-12):1077–1089, November–December 2006.

### Conference Proceedings

Daniel H Grollman and Odest Chadwicke Jenkins. Sparse incremental learning for interactive robot control policy estimation. In *International Conference on Robotics and Automation*, pages 3315–3320, Pasadena, CA, USA, May 2008.

Daniel H Grollman and Odest Chadwicke Jenkins. Learning robot soccer skills from demonstration. In *International Conference on Development and Learning*, pages 276–281, London, UK, July 2007.

Daniel H Grollman and Odest Chadwicke Jenkins. Dogged learning for robots. In *International Conference on Robotics and Automation*, pages 2483 – 2488, Rome, Italy, April 2007.

Carsten Magerkurth, Timo Engelke, and Dan Grollman. A component based architecture for distributed, pervasive gaming applications. In *ACM SIGCHI International Conference on Advances in Computer Entertainment Technology*, Hollywood, CA, USA, June 2006.

David Eigen, Daniel Grollman, David Laidlaw, Benjamin Greenberg, and Erin Einbinder. Visualizing deep brain stimulation settings in obsessive compulsive disorder. In *ACM SIGGRAPH International Conference on Computer Graphics and Interactive Techniques*, Los Angeles, California, August 2004.

### Videos / Demos

Rgame: Embodied gaming for robot learning by demonstration. IJCAI 2009 Robot Challenge - LbD, July 2009.

Rgame: Robotic gaming. ICRA 2009 Robot Challenge - HRI, May 2009.

Daniel Byers, Micah Lapping-Carr, Julie Kumar, Theodora Hinkle, Daniel Grollman, and Odest Chadwicke Jenkins. HRI caught on film 2. In Christoph Bartneck, editor, *ACM/IEEE International Conference on Human Robot Interaction*, Amsterdam, The Netherlands, 2008.

Daniel Byers, Michael Lapping-Carr, Julie Kumar, Thea Hinkle, Dan Grollman, and Chad Jenkins. Game-based learning. AAI2008 Video Competition, July 2008. **Winner: Best Student Video.**

## Workshops / Symposia

Daniel H Grollman and Odest Chadwicke Jenkins. Multimap regression for perceptual aliasing in learning finite state machine robot controllers from interactive demonstration. In *RSS Workshop on Regression in Robotics*, Seattle, Washington, USA, June 2009. **Winner: Best Poster.**

Daniel H Grollman and Odest Chadwicke Jenkins. Learning multi-objective control policies from demonstration. In *IROS workshop on Robotics Challenges for Machine Learning*, Nice, France, September 2008.

Micah Lapping-Carr, Odest Chadwicke Jenkins, Daniel H Grollman, Jonas N Schwertfeger, and Theodora R Hinkle. Wiimote interfaces for lifelong robot learning. In *AAAI Spring Symposium*, Menlo Park, CA, USA, March 2008.

Daniel H Grollman and Odest Chadwicke Jenkins. (Machine) learning robot control policies. In *NIPS Workshop on Robotics Challenges for Machine Learning*, Whistler, BC, Canada, December 2007.

Daniel H Grollman and Odest Chadwicke Jenkins. Learning robot soccer from demonstration: Ball grasping. In *R:SS Workshop on Robot Manipulation: Sensing and Adapting to the Real World*, Atlanta, GA, USA, June 2007.

Daniel H Grollman, Odest Chadwicke Jenkins, and Frank Wood. Discovering natural kinds of robot sensory experiences in unstructured environments. In *North East Student Colloquium on Artificial Intelligence*, Ithica, NY, USA, April 2006.

Daniel H. Grollman, Odest Chadwicke Jenkins, and Frank Wood. Discovering natural kinds of robot sensory experiences in unstructured environments. In *NIPS Workshop on Machine Learning Based Robotics in Unstructured Environments.*, Whistler, BC, Canada, December 2005.

## White Papers / Technical Reports

Daniel H. Grollman, Odest Chadwicke Jenkins, and Jesse Butterfield. RGame: Embodied Gaming for Robot Learning by Demonstration. Technical report, AAI, 2009.

Frank Wood, Daniel H. Grollman, Katherine A. Heller, Odest C. Jenkins, and Michael Black. Incremental Nonparametric Bayesian Regression. Technical Report CS-08-07, Brown University Department of Computer Science, 2008.

Daniel H Grollman, Odest Chadwicke Jenkins, and Frank Wood. Extensible data-driven classification of robot sensor data. Technical report, Brown University Department of Computer Science, 2005.

Stuart Andrews, Lijuan Cai, David Gondek, Amy Greenwald, Daniel Grollman, Arni Mar Jonsson, Keith Hall, Matthew Lease, Bryant Ng, John Raiti, Victoria Sweetser, and Jenine

Turner. Astrology: The study of astro teller. In *International Conference on Machine Learning Physiological Modeling Contest*, 2004.

### Other Talks

Robots, and Learning, and the Future! Oh my! Applied Minds, July 2009.

Learning multimap robot control policies from demonstration. University of Massachusetts, Amherst, April 2009.

Multimap control policies. Washington University in St. Louis, February 2009.

Learning from multimap demonstration. Harvard Artificial Intelligence Research Group, November 2008.

Sparse incremental learning for interactive robot control policy estimation. New England Manipulation Symposium, May 2008.

Interactive robot learning with statistical regression. HRI Young Pioneers Workshop, March 2008.

Learning robot soccer skills from demonstration. New England Manipulation Symposium, June 2007.

Dogged learning for robots. HRI Young Pioneers Workshop, March 2007.

## Teaching / Mentoring Experience

Master's students	Sanghoon Cha (2009), Suamporn Ketpreechasawat (2006)
Undergraduates	Jesse Errico (2008), Micah Lapping-Carr (2006-present)
High School Interns	Dennis Wu (2008), Graham Hall (2007), Sean Smith (2006)
Sep '08 - May '09	Assistant Instructor, Brown Tae Kwon Do
Sep '06 - May '09	Captain, Brown # Robocup Team (Masters and Undergrads)
Sep '06 - Aug '07	Principal Organizer, Brown Machine Learning Reading Group
Sep '06 - Dec '06	TA for <i>Introduction to Machine Learning</i> , Instructor: Dr. Gregory Shakhnarovich
Sep '04 - Dec '04	TA for <i>Introduction to Cryptography and Computer Security</i> Instructor: Dr. Anna Lysyanskaya
2004 - 2009	WhizKids Foundation staff. <a href="http://www.whizkidsfoundation.org/">http://www.whizkidsfoundation.org/</a>

## Awards / Recognition

Best Poster, R:SS 2009 Workshop on Regression in Robotics.

Best student video, AAAI 2008 video contest.

Human-Robot Interaction Young Pioneer Award, 2007-8.

Intel Science Talent Search Finalist, 1999

## Professional Service

Co-Chair: ICRA 2009 Human-Robot Interaction competition

Program Chair: 2009 AAAI Spring Symposium (Learning from Humans)

Program Committee: 2008 AAAI

Student Organizer: 2008 ICRA workshop (NEWHRI)

Webmaster: 2006 Robotics: Science and Systems

Reviewer for (last five years):

ICRA	IEEE International Conference on Robotics and Automation
ROMAN	IEEE International Symposium on Robot and Human Interactive Communication
AURO	Autonomous Robots
HRI	ACM/IEEE International Conference on Human-Robot Interaction
R:SS	Robotics: Science and Systems
IJCAI	International Joint Conference on Artificial Intelligence
IROS	IEEE/RSJ International Conference on Intelligent Robots and Systems
JFR	Journal of Field Robotics
NESCAI	North East Student Colloquium on Artificial Intelligence
AAAI	National Conference on Artificial Intelligence
IJHR	International Journal of Humanoid Robots
ICML	International Conference on Machine Learning

## University Service

2006-08 Faculty-Grad Liaison, Brown CS Department

2004-05 Grad Student at Large on the Brown Student Activities Advisory Board

## Personal Information

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