

## 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.

## Selected Previous Employment

- EPFL ('09-now): Researched and implemented statistical machine learning techniques for inferring robot movement controllers from failed demonstrations. Developed a ROS (Robot Operating System) node for the Barrett WAM (Whole Arm Manipulator) for experimentation. Results presented in Grollman and Billard [2011].
- Brown ('03-'09): Researched robot learning from interactive human demonstration and sensor processing. Implemented communication and control systems for the Sony AIBO robot dog, including a remote network-based immersive teleoperation interface. Additionally interfaced with Wiimote and time-of-flight distance camera devices. All results detailed in Grollman [2010] and Grollman, Jenkins, and Wood [2006].
- Fraunhofer ('05): Developed hardware interfaces for physical game boards and RFID readers. Designed an XML schema for describing items and control logic in the domain of hybrid games and implemented an interpreter. Resulting system was described in Magerkurth, Engelke, and Grollman [2006].
- iRobot (2004): Developed drivers and libraries as part of an autonomous robot project on the Packbot platform. Sensors used included a 360 degree laser scanner, infrared camera, stereo camera pair, and inertial measuring unit.
- Microsoft ('02/'03): Implemented peer-to-peer communications on the Smart Personal Objects Technology (SPOT) watch and designed proof-of-concept games. Wrote firmware for wireless mice, utilizing USB packet sniffers and FPGAs.

## Leadership Experience

- Teaching: TA for Machine Learning (Brown, EPFL) and Cryptography (Brown). Assistant Instructor Brown Tae Kwon Do.
- Mentoring: Captain of Brown # (Robocup). Organizer of the Machine Learning Reading Group. WhizKids Foundation staff.
- Advising: 3 high school interns, 3 undergraduate projects, and 2 masters students.
- Directing: Directed productions of Gilbert & Sullivan's "The Mikado" and "Iolanthe."
- Representing: Served as Faculty-Grad Liaison for 2 terms, and on the Brown student activities advisory board.

## Recognition

2011 Best Cognitive Robotics Paper (ICRA). 2009 Best Poster (Regression in Robotics, R:SS). 2008 Best student video (AAAI video contest). 2007 & 2008 Young Pioneer in HRI. 1999 Intel Science Talent Search finalist.

## Additional Skills

Computer Languages (in order of familiarity): C/C++, Matlab/Octave, Bash, Perl, Scheme, C#, Java, Haskell, Assembly

Spoken Languages (in order of fluency): English, French, Spanish.

Instruments (in order of expertise): Bagpipes, drums & percussion, ukulele, violin, harmonica, concertina, piano.

## References

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

Daniel H Grollman and Aude Billard. Donut as I do: Learning from failed demonstrations. In *International Conference on Robotics and Automation*, Shanghai, May 2011.

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.

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.