

David Little

Contact Information

EECS Department, Northwestern University
Ford Engineering Design Center, Room 3-211
2133 Sheridan Road, Evanston, IL, 60208, USA

+1 (847) 467-4399

d-little@u.northwestern.edu

www.david-little.net

Education

- 09/06 - now Ph.D. Candidate: Cognitive Systems Division, EECS Department
Research Interests: machine learning, psychoacoustics, signal processing, computational models of human perceptual learning and memory.
Advisor: Bryan Pardo
Cognitive Science Specialist
Northwestern University
- 08/02 - 08/06 B.A., Majors: Computer Science and Cognitive Science
Vassar College, Poughkeepsie, NY

Fellowships

- 09/06 - 06/07 Incoming Cognitive Science Fellowship, Northwestern University.
- 09/09 - 06/10 Advanced Cognitive Science Fellowship, Northwestern University.

Research Experience

- 06/09 - now Research Assistant
Advisor: Bryan Pardo
EECS Department, Northwestern University, Evanston, IL
- 06/05 - 08/05 Vassar College Undergraduate Summer Research: Robot Models of Human Category Learning
Advisor: Ken Livingston
Vassar College, Poughkeepsie, NY
- 06/04 - 08/04 Vassar College Undergraduate Summer Research: Algorithms for Hexagonal Metamorphic Robots
Advisor: Jennifer Walter
Texas, A&M University, College Station, TX.

Teaching Experience

- Spring, 2005 Lab Assistant - Software Design and Implementation
- Fall, 2006 Lab Assistant - Cognitive Science, Perception & Action
- Spring, 2006 Lab Assistant - Research Methods in Cognitive Science
- Spring, 2007 Teaching Assistant - Introduction to Artificial Intelligence

Service

- 2007 Conference Reviewer - IEEE International Conference on Acoustics, Speech and Signal Processing, 2008
- 2007 Conference Reviewer - IEEE International Symposium on Circuits and Systems, 2008.
- 2009 Journal Reviewer - Computer Music Journal
- 2009 Conference Reviewer - International Conference on Music Information Retrieval (ISMIR), 2009.
- 2010 Conference Reviewer - International Conference on Music Information Retrieval (ISMIR), 2009.

Publications

Refereed Conferences Proceedings

- D. Little and B. Pardo. Computational models of perceptual learning across multiple auditory tasks: Modeling daily learning limits as memory decay. In *Proceedings of the 10th International Conference on Cognitive Modeling*, 2010.
- D. Little and B. Pardo. Learning musical instruments from mixtures of audio with weak labels. In *9th International Conference on Music Information Retrieval (ISMIR)*, 2008.
- D. Little, D. Raffensperger, and B. Pardo. A query by humming system that learns from experience. In *8th International Conference on Music Information Retrieval (ISMIR)*, Vienna, Austria., September 2007.
- D. Little and J. Walter. Using hexagonal metamorphic robots to form temporary bridges. In *in Proc. of the IEEE International Conference on Intelligent Robotic Systems*, pages 2652–2657, Edmonton, Alberta, Canada, August 2005.
- J. Walter, M. Brooks, D. Little, and N. Amato. Enveloping multi-pocket obstacles with hexagonal metamorphic robots. In *in Proc. of the IEEE Intl. Conf. on Robotics and Automation*, pages 2204–2209, New Orleans, LA, April 2004.
- J. Walter and D. Little. Bridging gaps in traversal surfaces with hexagonal metamorphic robots. In *in Proc. of the American Nuclear Society 10th International Conference on Robotics and Remote Systems for Hazardous Environments*, pages 28–31, Gainesville, FL, March 2004.

Poster Presentations and Demos

- B. Pardo, D. Little, R. Jiang, H. Livni, and J. Han. The vocalsearch music search engine. In *Proceedings of the 8th ACM/IEEE-CS joint conference on Digital libraries*, pages 430–430. ACM New York, NY, USA, 2008.
- D. Little, D. Raffensperger, and B. Pardo. User-specific training for a music search engine. In *4th Joint Workshop on Multimodal Interaction and Related Machine Learning Algorithms*, pages 28–30, Brno, Czech Republic., June 2007.