

Emily Hand

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EDUCATION

Doctor of Philosophy in Computer Science *2013-present*
University of Maryland College Park

Bachelor of Science in Computer Science and Engineering, magna cum laude *2009-2013*
Bachelor of Science, Applied Mathematics, magna cum laude *2009-2013*
University of Nevada Reno

EXPERIENCE

Graduate Research and Teaching Assistant *August 2013-Present*
University of Maryland College Park

- Create and grade homework, quizzes, programming projects, and exams for Artificial Intelligence class.
- Integrating internal and external meta-cognition into an artificial dialog agent (ALFRED).

Research Intern *May 2012-August 2012, May 2013-August 2013*
NASA AMES Research Center

- Developed a structure from motion framework compatible with other localization techniques for use on low-resolution rover and high-resolution planetary images with the Advanced Navigation subgroup of the Intelligent Robotics Group.

Undergraduate Teaching Assistant *January 2012-May 2012, January 2013-May 2013*
University of Nevada, Reno

- Graded homework and programming projects for students in the Data Structures and Algorithms courses.
- Led discussion lecture and lab sections for the introductory computer science course.

Undergraduate Research Assistant *November 2010-December 2012*
University of Nevada, Reno

- Improved performance of template tracking system using Random Projections in place of Principal Component Analysis for dimensionality reduction.
- Integrated Sparse Bundle Adjustment into the Structure from Motion system to improve accuracy.

NSF REU Participant *May 2011-August 2011*
University of Central Florida

- Developed a template-based tracking framework for use in a larger human tracking system with a Ph.D. candidate.

SERVICE

WICSE: Women into Computer Science and Engineering (UNR) *November 2010-May 2013*
ACM: Association for Computing Machinery (UNR) *January 2011-May 2013*
SIAM: Society for Industrial and Applied Mathematics (Professional) *August 2013-present*

CONFERENCE AND WORKSHOP PUBLICATIONS

1. Guang Shu, Afshin Dehghan, Omar Oreifej, **Emily Hand**, Mubarak Shah, "Part-based Multiple-Person

Tracking with Partial Occlusion Handling", in CVPR, 2012.

2. Don Perlis, Mike Cox, Michael Maynard, Elizabeth McNany, Matthew Paisner, Vika Shivashankar, **Emily Hand**, Jared Shamwell, Tim Oates, Tongchun Du, Darsana Josyula and Manual Caro, "A Broad Vision for Intelligent Behavior: Perceptual Real-World Cognitive Agents," in Advances in Cognitive Systems, Workshop on Metacognition and Artificial Situated Agents 2013.
3. **Emily Hand**, Darsana Josyula, Matthew Paisner, Elizabeth McNany, Michael T. Cox and Don Perlis, "Two Approaches to Implementing Metacognition," in The Sixth International Conference on Advanced Cognitive Technologies and Applications, COGNITIVE 2014.