

Eric M. Meisner

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Current Position

- Research Engineer
Johns Hopkins Whiting School of Engineering
January 2012 - Present

Education

- Post Doctoral Fellow
Department of Computer Science/CIRL Lab
The Johns Hopkins University May 2009 - November 2011
- Rensselaer Polytechnic Institute
Department of Computer Science
Ph.D. Computer Science Robotics
Defended February 2009, Graduation May 2009
- University of Rochester, Rochester, NY
B.S. Computer Science, May 2003

Doctoral Dissertation

Title: Learning Controllers for Human-Robot Interaction
Thesis Advisors: Professor Volkan Isler & Professor Jeff Trinkle

Publications

Journal

- Eric Meisner, Gregory D. Hager, Stace L. Ishman David Brown, David Tunkel, Masaru Ishii. **Anatomical Reconstructions of Pediatric Airways from Endoscopic Images: A Pilot Study of the Accuracy of Quantitative Endoscopy.** The Laryngoscope Note: Submitted.
- E. Meisner, Šabanović, Isler, Caporael, Trinkle **ShadowPlay: A Generative Model for Nonverbal Human-Robot Interaction** Note: Submitted
- E. Meisner, V. Isler, J.C. Trinkle **Controller Design for Human-Robot Interaction.** *Autonomous Robots vol. 24 num. 2 pages 123-134*, 2008.
- E. Meisner, W. Yang, V. Isler, **Probabilistic Network Formation through Coverage and Freeze-Tag** *Journal of Intelligent Service Robotics: Special Issue on Networked Robots: Serving the Society.*
- Richa R., Balicki M., Sznitman R., Meisner M., Taylor R., Hager G., **Vision-based Proximity Detection in Retinal Surgery**, IEEE Transactions on Biomedical Engineering (TBME), NOTE: accepted, to appear.

Conference and Workshop

- Eric Meisner, Gregory D. Hager, Masaru Ishii, Stace Ishman David Brown, David Tunkel. **Anatomical Reconstructions of Pediatric Airways from Endoscopic Images: A Pilot Study of the Accuracy of Quantitative Endoscopy**. 115th Annual Meeting at the Combined Otolaryngological Spring Meetings (COSM).
- Haluk Noyan Tokgozoglu, Eric Meisner, Misha Kazhdan Gregory D. Hager, **Color-Based Hybrid Reconstruction for Endoscopy** Workshop on Medical Computer Vision at The IEEE Conference on Computer Vision and Pattern Recognition 2012
- Rogrio Richa, Marcin Balicki, Eric Meisner, Raphael Sznitman, Russell H. Taylor, Gregory D. Hager **Visual Tracking of Surgical Tools for Proximity Detection in Retinal Surgery** IPCAI 2011: 55-66
- Meisner, Das, Isler, Trinkle, Šabanović, Caporael. **Predictive State Representations for Grounding Human-Robot Interaction** *2010 International Conference on Robotics and Automation*.
- Xuan Liu, Eric Meisner, Jae-Ho Han, Kang Zhang, Peter Gehlbach, Russell Taylor, and Jin U. Kang. **Internal limiting membrane layer visualization and vitreoretinal surgery guidance using a common-path oct integrated microsurgical tool** *In The International Society for Optical Engineering SPIE Photonics West, 2010*.
- Eric Meisner and Selma Sabanovic. **Grounding communication without prior structure** *In AAAI 2010 spring symposium workshop It's All In the Timing: Representing and Reasoning About Time in Interactive Behavior, 2010*.
- E. Meisner, Šabanović, Isler, Caporael, Trinkle **ShadowPlay: A Generative Model for Nonverbal Human-Robot Interaction** *4th ACM/IEEE International Conference on Human-Robot Interaction*.
***Best Paper Award Finalist**
- Šabanović, E. Meisner, Caporael, Isler, Trinkle **Outside-in” Design for Interdisciplinary HRI Research** *2009 AAAI Spring Symposium on Experimental Design for Real-World Systems* Note: Accepted, to Appear
- E. Meisner, W. Yang, V. Isler, **Probabilistic Network Formation through Coverage and Freeze-Tag** *Workshop on Algorithmic Robotics* 2008.
- E. Meisner and V. Isler. **Designing Controllers for Human-Robot Interaction**. *Proc. Walter Lincoln Hawkins Graduate Research Conference*, Troy, NY, March. 2007.
- S. Kamath, E. M. Meisner, and V. Isler. **Triangulation Based Multi-target Tracking with Mobile Sensor Networks**. In *Proc. IEEE Int. Conf. on Robotics and Automation* 2007.
- Thomas Kollar, Jonathan Schmid, Eric Meisner, Micha Elsner, Diana Calarese, Chikita Purav, Chris Brown, Jenine Turner, Dasun Peramunage, Gautam Altekar, Victoria Sweetser **Mabel: Extending Human Interaction and Robot Design**, *International Joint Conference on Artificial Intelligence proceedings* 2003
- Jonathan Schmid, Thomas Kollar, Eric Meisner, Victoria Sweetser, David Feil-Seifer, Chris Brown, Ben Atwood, Jenine Turner, Diana Calarese, Scott Cragg, Habib Chaudhary, Mike Isman **Mabel: Building a Robot for Human Interaction**, *American Association of Artificial Intelligence Conference proceedings* 2002

Patents

- *Three-Dimensional Imaging from Visible Light Endoscopic Images* Gregory D. Hager Masaru Ishii Eric M. Meisner Daniel J. Marota Haluk N. Tokgozoglul. JHU Ref. No. P11894_01

Research And Professional Experience

- **Research Engineer** November 2011 - September 2012
Clearguide Medical LLC. , Baltimore MD.
- **Postdoctoral Researcher** May 2009 - Present
Computational Interaction and Robotics Laboratory
Department of Computer Science
The Johns Hopkins University, Baltimore MD.
- **Graduate Research Assistant** Fall 2005 - May 2009
Robotics and Sensor Networks Laboratory
Department of Computer Science
Rensselaer Polytechnic Institute, Troy NY
- **Student Associate** Summer 2005
Telepresence Lab, Engineering and Systems Division
SRI International
Menlo Park, CA
- **Teaching Assistant** Fall 2003 - Spring 2005
Department of Computer Science
Rensselaer Polytechnic Institute, Troy NY
- **Undergraduate Research Assistant** January 2002 - July 2003
Department of Computer Science
University of Rochester, Rochester NY

Honors

- Hartwell Biomedical Engineering Fellowship 2010-2011
- Rush Rhees scholar, University of Rochester
- First place team, Association for the Advancement of Artificial Intelligence robot host competition 2002.
- First place team, International Joint Conferences on Artificial Intelligence robot host competition 2003.

Service

- **Program Review Panel Member** National Science Foundation 2012
- **Co-Chair** International Workshop on Collaborative Robots and Human Robot Interaction, at the 2010-2012 International Conference on Collaboration Technologies and Systems.
- **Organizer and Speaker** Landgraf Center for Computer Vision, Graphics, and Robotics Accepted students day, and middle school outreach programs, 2005-2008
- **Student Member**, Fall 2006 Spring 2007 Graduate Admissions Committee, RPI
Department of Computer Science, Troy NY
- **Volunteer Tutor**, Fall 2000 to 2002 South West Community center, Rochester NY