

James P. O'Shea

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Education:

2011 **PhD in Vision Science** (expected)
University of California, Berkeley
Co-advisor: Marty Banks (Vision Science)
Co-advisor: Maneesh Agrawala (Computer Science)
Concentration: Shading and shape perception

1999 **BS in Computer Science**
University of New Hampshire
Magna Cum Laude

Employment:

2006-current **University of California, Berkeley**
Berkeley, CA
Position: Graduate Researcher

2003-2006 **Brigham and Women's Hospital**
Boston, MA
Golby Lab, Neurosurgery Dept.
Position: Computer Programmer

2002-2006 **Harvard University**
Cambridge, MA
Affective Neuroscience Lab, Psychology Dept.
Position: IT Support Associate

1999-2002 **Vividata, Inc**
Berkeley, CA
Position: Software Developer

1998-1999 **Fidelity Investments**
Merrimack, NH
Position: Software Developer

Conference Papers:

The assumed light direction for perceiving shape from shading. James P. O'Shea, Martin S. Banks, Maneesh Agrawala. *ACM Symposium on Applied Perception in Graphics and Visualization (APGV)*. August, 2008. 135-142.

Using surface normals to localize electrodes placed during neurosurgery. James P. O'Shea, William M. Wells, Alexandra J. Golby. *IEEE International Symposium on Biomedical Imaging (ISBI)*. April, 2006. 331-334.

Journal Articles:

A surgical planning method for functional MRI assessment of language dominance: Influences from threshold, region-of-interest, and stimulus mode. Ralph Suarez, Stephan Whalen, James P. O'Shea, Alexandra J. Golby. *Brain Imaging and Behavior*. June 2008. vol 2, no 2. 59-73

Object naming is a more sensitive measure of speech localization than number counting: Converging evidence from direct cortical stimulation and fMRI. Nicole Petrovich Brennan, Stephen Whalen, Daniel M. Branco, James P. O'Shea, Isaiah H. Norton, Alexandra J. Golby. *Neuroimage*. 2007; 37, S100-S108

Integrated image- and function-guided surgery in eloquent cortex: A technique report. James P. O'Shea, Stephan Whalen, Daniel M. Branco, Nicole Petrovich Brennan, Kyle E. Knierim, Alexandra J. Golby. *International Journal of Medical Robotics and Computer-Assisted Surgery*. 2006; 2: 75-83.

Functional MRI of memory in the hippocampus: Laterality indices may be more meaningful if calculated from whole voxel distributions. Daniel M. Branco, Ralph O. Suarez, Stephan Whalen, James P. O'Shea, Kyle E. Knierim, Aaron P. Nelson, Jaderson C. da Costa, Alexandra J. Golby. *Neuroimage*. 2006; 32, 592-602.

Memory encoding in Alzheimer's disease: An fMRI study of explicit and implicit memory. Alexandra J. Golby, Gerald Silverberg, Elizabeth Race, Susan Gabrieli, James P. O'Shea, Kyle Knierim, Glenn Stebbins, John Gabrieli. *Brain*. 2005; 128, 773-787.

Toward an objective characterization of an anhedonic phenotype: A signal detection approach. Diego A. Pizzagalli, Allison L. Jahn, James P. O'Shea. *Biological Psychiatry*. 20-05; 57, 319-327.

Conference Talks:

How is the perception of shape from shading affected by revealing the lighting properties? *To be presented at the 2009 Vision Sciences Society Meeting (VSS)*. Naples, FL. May 2009

Using surface normals to localize electrodes placed during neurosurgery. *Presented at the 2006 International Symposium on Biomedical Imaging (ISBI)*. Alexandria, VA. April 2006.

Poster Presentations:

The preferred angle of illumination in shape from shading. James P. O'Shea, Maneech Agrawala, Martin S. Banks. *Presented at the 2008 Vision Sciences Society Meeting (VSS)*. Naples, FL. May 2008.

Determination of cerebral dominance from vocalized language using region-of-interest analysis: an MEG and fMRI comparative study. Ralph O. Suarez, James P. O'Shea, Stephan Whalen, Steve Stufflebeam, Alexandra J. Golby. *Presented at the 2005 Society for Neuroscience Meeting (SfN)*. Washing, DC. November 2005.

Visualization of eloquent systems for vocalized language by integration of MEG, fMRI, and DTI: Applications in surgical neuronavigation. Ralph O. Suarez, Steve Stufflebeam, Daniel Kacher, Stephen Whalen, James P. O'Shea, Alexandra J. Golby. *Presented at the 2005 MEG Applications Meeting (MEGA)*. Xylocastro, Greece. Septemeber 2005.

Pneumatically-driven finger movement: A novel, passive fMRI technique for pre-surgical motor and sensory mapping. Kyle E. Knierim, James P. O'Shea, Nicole M. Petrovich, Hillary K. Rolls, Gary Glover, Alexandra J. Golby. *Presented at the 2004 Congress of Neurological Surgeons Meeting (CNS)*. San Francisco, CA. October 2004.

Confrontation naming is a more sensitive measure of speech localization than number counting: Converging evidence from direct cortical stimulation and fMRI. Nicole M. Petrovich, Stephen Whalen, James P. O'Shea, Kyle E. Knierim, IA Morocz, Alexandra J. Golby. *Presented at the 2004 Congress of Neurological Surgeons Meeting (CNS)*. San Francisco, CA. October, 2004.

**Teaching
Experience:**

Fall 2008 Anatomy and physiology of the eye (VS206A)
Neuroanatomy and neurophysiology of the eye and visual system (VS206D)
Spring 2008 Oculomotor functions and neurology (VS217)
Binocular Vision and Space Perception (VS219)
Spring 2007 Oculomotor functions and neurology (VS217)
Binocular Vision and Space Perception (VS219)

**Professional
Activities:**

Member: Association of Computing Machinery (ACM)
Institute of Electrical and Electronics Engineers (IEEE)
Vision Sciences Society (VSS)