Deborah Hanus

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Education

B.S. Brain and Cognitive Sciences	current	MIT	Cambridge, MA	GPA: 4.9 / 5.0
B.S. Computer Science and Engineering	current	MIT	Cambridge, MA	GPA: 4.0 / 5.0

Fellowships and Awards

IEEE Engineering and Research Travel Award, MIT 2009
- *Awarded for superior project proposal using technology to impact society*

National Society of Collegiate Scholars, MIT 2008
- *Induction offered to top 20% of class for academic achievement*

Centre for Vision Research Vision Science Summer School, York University 2008
- *Awarded to 24 students internationally who are interested in pursuing a career in vision science*

Alumni Memorial Scholar Fellowship, Colgate University 2005
- *Awarded to 20 students from each class year to fund academic research or travel*

Peer-reviewed Journal Articles

Vul, E., **Hanus, D.**, & Kanwisher N. (2009) "Attention as inference: Selection is probabilistic and graded, Conscious access is sampled and discrete." *Journal of Experimental Psychology: General.* 138(4), 546-60.
Vul, E., **Hanus, D.**, & Kanwisher N. (2008) "Delay of selection during the attentional blink." *Vision Research.* 48(18), 1902-9.

Manuscripts in preparation

Hanus, D. & Vul, E. (in preparation) "Semantic cueing: exogenous and endogenous context effects"
Hanus, D. & Vul, E. (in preparation) "Measuring texture synthesis and spatial uncertainty in perceptual crowding"
Hanus, D., Ho, P. & Singh, R. (in preparation) "Topological and Geometrical Characterization of Cortical Network Vertices"

Posters

Hanus, D., & Ho, P. Structure of Sensation in the Cortical Network of the Macaque Brain. Poster Presentation at IBM India Research Labs Symposium, New Delhi, India, July 2010.
Hanus, D., Vul, E., & Kanwisher, N. Measuring spatial uncertainty in perceptual crowding. Poster presentation at MIT Undergraduate Research Symposium, Cambridge, MA, April 2009.
Hanus, D., Vul, E., & Kanwisher, N. Measuring spatial uncertainty in perceptual crowding. Poster presentation at Boston Undergraduate Research Symposium, Harvard University, Cambridge, MA, April 2009.
Hanus, D., Vul, E., & Kanwisher, N. Delay of selective attention during the attentional blink. Poster presentation at Vision Sciences Society meeting, Naples, FL, May 2008.
Vul, E., **Hanus, D.**, & Kanwisher, N. Selective attention and uncertainty. Poster at the Vision Science Society meeting, Naples, FL, May 2008.

Talks

MIT BCS UROP Luncheon 06/2010
"Perceptual Crowding: attentional resolution or integration fields?"
MIT BCS UROP Luncheon 07/2007; 06/2008
"Speed of the surround: semantic cueing and object perception"
Kanwisher Lab Meeting 10/2007
"Speed of the surround: semantic cueing and object perception"

Association Membership

Vision Sciences Society Student Member 12/2007
Society for Women Engineers Student Member 1/2008

Research Experience

IBM-India Research Labs, Intern — Delhi, India — 06/2010–08/2010
• *Contributed to Cognitive Computing Project aimed at creating an efficient SyNAPSE (Systems of Neuromorphic Adaptive Scalable Electronics) to be used in an all-purpose sensory system*
Advisor: Raghavendra Singh, PhD

MIT McGovern Institute for Brain Research, UROP Researcher — Cambridge, MA — 02/2007–05/2010
• *Projects include research on the Attentional Blink, consciousness, and semantic context*
• *Mentored new undergraduate researchers*
Advisors: Edward Vul, PhD and Nancy Kanwisher, PhD

MIT Laboratory for Nuclear Science, UROP Researcher — Cambridge, MA — 06/2008–08/2008
• *Performed analysis necessary to determine the quenching factor of CF4, which is important for modeling dark matter detection as an elastic collision*
Advisor: Jocelyn Monroe, PhD

Teaching and Service

Teaching Assistant: 9.93 Introduction to Neuroanatomy, IAP 2011, MIT
• *Assisted students in lab exercises and answered questions about neural structures and function*
Advocacy Chair: Society for Womens Engineers, 2010-2011, MIT
• *Organized graduate-undergraduate mentoring program; Coordinated campus-wide lecture-series*
Member: Student Information Processing Board, 2010, MIT
• *Organized Student-Faculty Dinners*
Advisor: Undergraduate associate advisor for transfer students: 2009-2011, MIT, UAAP
• *Mentored 45 transfer students in academics and extracurricular pursuits*
Co-founder: Ana: an online community for Lebanese women, 2009
• *Founded community advocating womens rights in Lebanon*
• *Participated in designing and implementing the necessary software application*
Founder: Women's Discussion Forum, Colgate University, 2006
• *Founded group, fostering mentor relationships between students and faculty and alumni*
Tutor: Fall 2006. Introduction to Neuroscience, Colgate University
• *Directed students in reviewing material from lecture, devised learning aids, etc.*
Mentor: Alumni Memorial Scholar Fellowship, Colgate University, 2006
• *Guided first-year scholars in planning and executing their research*

Skills

Programming:

Proficient in Python, Java, MATLAB, LaTeX, HTML/CSS

Working knowledge of Scheme, Assembly, JSim (like Spice)

Software:

Proficient in fs-fast (fMRI analysis), SPSS, BUGs, Adobe Suite

Functional Magnetic Resonance Imaging (fMRI) certified, In-training

Trans-cranial Magnetic Stimulation (TMS) certified, In-training

National Registry Certified Emergency Medical Technician (EMT-B)

Licensed Private Pilot