Hyuntaek Oh

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RESEARCH INTERESTS

Functional neuroimaging (fMRI), Medical image analysis, Brain electrophysiology, Computer Vision, Data analysis, Digital Signal Processing

EDUCATION

Ph.D. student, **University of Nebraska - Lincoln**, Lincoln, NE USA 2014 - Present
Department of Biological Systems Engineering, Center for Brain, Biology and Behavior
Advisor: Dr. Steven Barlow, Dr. Greg Bashford
Committee Members: Dr. Steven Barlow, Dr. Greg Bashford, Dr. Mike Hoffman, Dr. Ashok Samal, and Dr. Srinivas Kota (Outside Representative)
Dissertation: *Funtional neuroimaging (fMRI) BOLD response to punctate saltatory velocity arrays delivered to glabrous hand/digits in neurotypical adults.*

Ph.D. student, **University of Kansas**, Lawrence, KS USA 2012 -2013
Bioengineering Graduate Program
Advisor: Dr. Steven Barlow

M.S., **University of Kansas**, Lawrence, KS USA August 2012
Bioengineering Graduate Program
Advisor: Dr. Brian Potetz
Committee Members: Dr. Brian Potetz, Dr. Luke Huan, Dr. Shannon Blunt, and Dr. Arvin Agah
Dissertation: *Bayesian ensemble learning for medical image denoising*

B.S. and B.E., **Yonsei University**, South Korea August 2005
Major: Physics
Double Major: Biomedical Engineering

PROFESSIONAL EXPERIENCE

Graduate Research Assistant,University of Nebraska - Lincoln, NE 2014 - present
• Communication Neuroscience Laboratory

Graduate Research Assistant,University of Kansas, KS Fall 2012 - 2013
• Communication Neuroscience Laboratory
• Software engineer working on development of NTrainer using MATLAB, LabVIEW

Graduate Research Assistant,University of Kansas, KS Summer 2012, 2011
• Information and Telecommunication Technology Center (ITTC)
• Medical image denoising by using Bayesian ensemble learning

Graduate Teaching Assistant,University of Kansas, KS
- ME682, Control Systems — Fall 2013
- BIOE801, Responsible Conduct of Research in Engineering — Fall 2013
- ME208, Introduction to Digital Computing Methods — Spring 2012, 2011
- ME455, Mechanical Engineering Measurements and Experiment — Fall 2011

Sales Executive, 2009 - 2010
- TI(Toshiba-Infinitt) Medical Systems Co.,Ltd. South Korea

Research Assistant,Yonsei University, Seoul, South Korea 2008 - 2009
- Ubiquitous Healthcare Computing Lab, Severance Hospital
- Measurement of Error-rate and throughput of wireless communication
- Working on making Korean Standards of using Home-healthcare equipments

Military Service, 2005 - 2007
- KATUSA (Korean Augmentation Troop to the U.S. Army), South Korea

LEADERSHIP ACTIVITIES

Warrior Leadership Course, 8th US Army Mar 2007 - Apr 2007

ACADEMIC HONORS

SECD student travel funds, University of Nebraska - Lincoln, NE 2015
School of Engineering Wallace S. Strobel Scholarship, University of Kansas, KS 2012
BrainKorea21 Research Fellowship award, Yonsei University, South Korea 2008

COMPUTER SKILLS

Software:	SPM, Mango
Languages:	MATLAB, LabVIEW, C++, Visual Basic, Visual Studio, SQL, R, LaTeX
Operating Systems:	Windows, Linux
Applications:	SSH Secure Shell (Under Linux), Microsoft Office

SOFTWARE DEVELOPMENT

NICU, Neonate Oromotor Database 2015
- Management of Neonatal Intensive-Care Unit (NICU) Database
- Developed in Visual Studio (Visual Basic) and SQL

PUBLICATIONS: Peer-Reviewed Journal Articles

Custead R, **Oh H**, Oder A, & Barlow SM. (2015). Adaptation of the cortical somatosensory evoked potential following pneumatic stimulation of the face in adults. *Brain Research 2015, 1622: 81-90*

Barlow SM, Lee J, Wang J, Oder A, **Oh H**, Hall S, Knox K, Weatherstone K, & Thompson D (2013). The effects of orocutaneous power spectra on the development of non-nutritive suck in preterm infants

with respiratory distress syndrome or chronic lung disease, and preterm infants of diabetic mothers. *J Neonatal Nursing*

ABSTRACTS AND SELECTED TALKS

Oh H, Custead R, & Barlow SM. (2015). Neural encoding of saltatory tactile velocity in human glabrous hand using fMRI. *Society for Neuroscience*, Chicago, IL

Custead R, **Oh H**, & Barlow SM. (2015). Encoding saltatory tactile velocity in the human orofacial somatosensory system using fMRI. *Society for Neuroscience, Nanosymposium*, Chicago, IL

Oder A, Custead R, **Oh H**, & Barlow SM. (2014). Hemodynamic changes in cortical sensorimotor systems following hand and orofacial motor tasks and pulse cutaneous stimulation. *Society for Functional Near Infrared Spectroscopy*, Montreal, Quebec Canada

Custead R, **Oh H**, Lee J, Oder A, & Barlow SM. (2014). Adaptation of the cortical somatosensosry evoked potential following pneumatic stimulation of the face in adults. *Conference on Motor Speech*, Sarasota, FL

Custead R, **Oh H**, Lee J, & Barlow SM. (2013). Adaptation of the cortical somatosensosry evoked potential following pneumatic stimulation of the face in adults. *Society for Neuroscience*, San Diego, CA

Oh H, & Yoo S. (2008). An Electrical-Mechanical safety and efficiency measurements for Home healthcare equipments. *U-Healthcare*, Pusan, South Korea

EDUCATION ENRICHMENT

Advanced Neuroimaging Methods with a Clinical Focus, Department of Radiology, Northwestern University, Chicago IL — September 2014
Event-related potential (ERP) training, Center for Brain, Biology and Behavior University of Nebraska - Lincoln — August 2014
fNIR Workshop, TechEn, Inc., Communication Neuroscience Laboratories — April 2014
Dr. David Boas (Harvard) webinar on fNIRS Homer2 and AtlasViewer — April 2014

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Society for Neuroscience (SfN)