# **Heejong Kim**

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## **Education**

Tandon School of Engineering, New York University, NY, USA PhD candidate, Computer Science & Engineering Sep 2016 - Present Advisor: Professor Guido Gerig Korea University, Seoul, South Korea M.E, Bio-convergence Engineering Aug 2016 Advisor: Professor Joon-Kyung Seong Korea University, Seoul, South Korea B.E, Biomedical Engineering Aug 2014 Advisor: Professor Joon-Kyung Seong Academic Experience

Tandon School of Engineering, New York University, NY, USA Research Assistant

Sep 2016 -

- Visualization Imaging and Data Analysis Center (VIDA) Lab (Advisor: Professor Guido Gerig)

Korea University, Seoul, Korea

Research Assistant Aug 2014 - Aug 2016

- Brain Reverse Engineering by Intelligent Neuroimaging (BREIN) Lab (Advisor: Professor Joon-Kyung Seong)

**Teaching Assistant** Aug 2014 - Aug 2016

- Bioinformatics (2016), BME Programming (2015), Medical Image Processing (2015), Introduction to Neuroscience (2014)

Undergraduate Research Assistant Jan 2013 - Jun 2013

- Brain Reverse Engineering by Intelligent Neuroimaging (BREIN) Lab (Advisor: Professor Joon-Kyung Seong)

## **Industrial Experience**

Internship: Math & Algorithms, Nokia Bell Labs, NJ, USA Jun 2019 - Aug 2019 Internship program, Boston Scientific, Seoul, Korea Jun 2013 - Aug 2013

## **Awards and Scholarships**

National Institutes of Health (NIH) awards, MICCAI, 2020 Best oral presentation, MICCAI CDMRI workshop, 2019 Best student paper finalist, SPIE Medical Imaging, 2019 Dean's PhD Fellowship, Tandon School of Engineering, New York University, 2016 Best Biomedical Image Award, Korea Society of Medical and Biological Engineering, 2015 Best Poster Presentation, Korea Society of Medical and Biological Engineering, 2014 BrainKorea21 PLUS Scholarship, 2014 - 2015 Woodeok Foundation Scholarship, 2011 - 2014

#### **Publications**

#### [Journal Papers]

- **Kim, H. J.**, Shin, J. H., Han, C. E., Kim, H. J., Na, D. L., Seo, S. W., ... & Alzheimer's Disease Neuroimaging Initiative. (2016). Using Individualized Brain Network for Analyzing Structural Covariance of the Cerebral Cortex in Alzheimer's Patients. Frontiers in neuroscience, 10.
- Jung, N. Y., Han, C. E., **Kim, H. J.**, Yoo, S. W., Kim, H. J., Kim, E. J., ... & Seo, S. W. (2016). Tract-specific correlates of neuropsychological deficits in patients with subcortical vascular cognitive impairment. Journal of Alzheimer's Disease, 50(4), 1125-1135.

### [Conference Proceedings]

- **Kim, H**, Hong, S., Styner, M., Piven, J., and Gerig, G. (2020). "Hierarchical geodesic modeling on the diffusion orientation distribution function for longitudinal DW-MRI analysis," Medical Image Computing and Computer Assisted Interventions (MICCAI) (**In print**)
- **Kim, H**, Eggleston, M., Kennedy, W., Shah, S., and Yu, C. (2020) "Automatic Detection and Size Estimation of Microparticle Biosensors in Optical Coherence Tomography Images," IEEE Photonics Conference (**In print**)
- **Kim, H**, Styner, M., Piven, J., and Gerig, G (2019). "A framework to construct a longitudinal DW-MRI infant atlas based on mixed effects modeling of dODF coefficients," Medical Image Computing and Computer Assisted Interventions (MICCAI) Workshop: CDMRI (**Oral Presentation**)
- **Kim, H**, Piven, J., Gerig, G., the IBIS Network (2019). Longitudinal structural connectivity in the developing brain with projective non-negative matrix factorization, SPIE Medical Imaging (**Oral Presentation**)

#### [Abstracts]

- **Kim, H.J.**, Seong, J.K., Cho, H., Seo, S.W., Na, D.L. (2014). Longitudinal changes of cortical thickness-based brain connectivity in early-versus late-onset Alzheimer's disease, International BioMedical Engineering Conference (IBEC) (**Oral presentation**)
- **Kim, H.J.**, Shin, J.H., Han, C.E., Seo, S.W., Seong, J.K. (2015). Individual Subject Network with Cortical thickness from Human Brain MRI, Organization for Human Brain Mapping (OHBM)
- **Kim, H.J.**, Seong, J.K. (2014) Longitudinal Changes of Cortical Thickness-Based Brain Connectivity in Alzheimer's disease, Korean Society of Medical and Biological Engineering (KOSOMBE)

## **Other Activities**

### [Journal Reviews]

NeuroImage: Clinical

#### [Reviewer for Conferences]

IEEE International Symposium on Biomedical Imaging (ISBI) Medical Image Computing and Computer Assisted Interventions (MICCAI)