Chihye Han (Kelsey)

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chan21@jhu.edu | kelseyhan-jhu.github.io | Google Scholar

Education

Johns Hopkins University — Baltimore, MD
Ph.D. in Cognitive Science. Computational Track. 2020–*Present*
M.A. in Cognitive Science. 2020-2022
Advisor: Michael F. Bonner.

Korea Advanced Institute of Science and Technology — Daejeon, Korea
M.S. in Electrical Engineering. 2017–2019
Advisor: Daeshik Kim.

Carleton College — Northfield, MN
B.A. in Cognitive Science. Neuroscience Concentration. 2009–2013
Honors in Music Performance, *Cum laude.*
Advisors: Kathleen G. Galotti and Roy Eleveton.

Publications

Han, C. & Bonner, M.F. High-dimensional Structure Underlying Individual Differences in Naturalistic Visual Experience. arXiv:2505.12653

Park, G., **Han, C.**, Yoon, W., & Kim, D. (2020). MHSAN: Multi-Head Self-Attention Network for Visual Semantic Embedding. *2020 IEEE Winter Conference on Applications of Computer Vision (WACV).* doi: 10.1109WACV45572.2020.9093548

Han, C., Yoon, W., Kwon G., Nam, S., & Kim, D. (2019). Representation of White- and Black-Box Adversarial Examples in Deep Neural Networks and Humans: A Functional Magnetic Resonance Imaging Study. *2019 International Joint Conference on Neural Networks (IJCNN).* doi: 10.1109IJCNN.2019.8851763

Kwon G., **Han, C.**, & Kim, D. (2019). Generation of 3D Brain MRI Using Auto-Encoding Generative Adversarial Networks. *2019 Medical Image Computing and Computer Assisted Intervention (MICCAI).* doi: 10.1007978-3-030-32248-9_14

Hong, J., Li, L., **Han, C.**, Jin, B., Yang, Q., & Yang, Z. (2016). Optimizing Hadoop Framework for Solid State Drives. *2016 IEEE International Congress on Big Data (BigData Congress).* doi: 10.1109BigDataCongress.2016.11

Conference Presentations

Han, C. & Bonner, M. F. High-dimensional structure underlying individual differences in naturalistic visual experience. *Vision Sciences Society*; May 16–20, 2025; St. Petersburg, FL.

Han, C. & Bonner, M. F. High-dimensional latent manifolds and individual differences in naturalistic movie viewing. *Cognitive Computational Neuroscience*; Aug 12–15, 2024; Boston, MA.

Han, C. & Bonner, M. F. High-dimensional latent manifolds as predictors of individual differences in naturalistic movie viewing. *Vision Sciences Society*; May 17–22, 2024; St. Petersburg, FL.

Han, C., Magri, C., & Bonner, M. F. Quantifying the latent semantic content of visual representations. *Vision Sciences Society*; May 21–26, 2021; Virtual.

Han, C., Yoon, W., Nam, S., & Kim, D. Neural Representation of Adversarial Images: An fMRI Study. *Women in Machine Learning Workshop*; Dec 3, 2018; Montreal, Canada.

Park. J., **Han, C.**, Kim. M., & Kim, D. End-to-End rs-fMRI Data Classification Using Deep Convolutional and Long Short-Term Memory Networks. *Organization for Human Brain Mapping*; Jun 17–21, 2018; Singapore.

Kim, M., **Han, C.**, Park, J., & Kim, D. T1 Image Synthesis with Deep Convolutional Generative Adversarial Networks. *Organization for Human Brain Mapping*; Jun 17–21, 2018; Singapore.

Honors

Elseveir/*Vision Research* Travel Award (*V*-VSS) 2021
National Scholarship (KAIST) 2017–2019
Student Travel Award (International Joint Conference of Neural Networks) 2019
Student Travel Award (Women in Machine Learning) 2018
Best Paper Award (International Congress on Big Data) 2016
Value Creator Award (Samsung Human Resources Development Center) 2014
Sixma Xi Nomination (Carleton College) 2012
Robert J. Kolenkow and Robert A. Reitz Fund for Undergraduate Research (Carleton College) 2010

Invited talks

KAIST, EE635: Functional Neuroimaging. Oct 2019
PsyGrammar, Cognitive Science Open Talk. Sep 2019

Experience

AI R&D Strategist, LG AI Research. Sep 2022–Jun 2023
Research Intern, KAIST. Hosted by Dr. Sang Ah Lee. Jan–May 2020
Analysis Engineer, OBELAB. Jan–May 2017
Software Engineer, Samsung Electronics. Feb 2014–April 2016

Teaching

Computational Cognitive Neuroscience of Vision, JHU. Spring 2024

Assistant	Cognitive Neuropsychology, JHU.	Fall 2021, 2023
	Cognitive Neuropsychology in Vision, JHU.	Spring 2022
	Cognitive Neuroscience, JHU.	Spring 2021
	Electronics Design Lab, KAIST.	Spring 2019
	Neural Networks, KAIST.	Fall 2018
	Music Theory I & II, Carleton College.	Fall–Winter 2012