Chihye Han (Kelsey)

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Education

Johns Hopkins University — Baltimore, MD
Ph.D. in Cognitive Science, Computational Track — 2020–Present
M.A. in Cognitive Science — 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
Cum laude, Honors in Music Performance
Advisors: Kathleen G. Galotti and Roy Eleveton

Publications

Han, C. & Bonner, M.F. High-dimensional Structure Underlying Individual Differences in Naturalistic Visual Experience. *Under revision*. 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).

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).

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).

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).

Conference Presentations

Talks

Han, C., Yoon, W., Kwon G., Nam, S., & Kim, D. Representation of White- and Black-Box Adversarial Examples in Deep Neural Networks and Humans: A Functional Magnetic Resonance Imaging Study. *International Joint Conference on Neural Networks*; Jul 14–19, 2019; Budapest, Hungary.

Posters

Han, C., Gauthaman, R.M. & Bonner, M. F. Behavioral relevance of high-dimensional neural representations. *Cognitive Computational Neuroscience*; Aug 12–15, 2025; Amsterdam, The Netherlands.

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.

Invited Talks

Johns Hopkins University, OneNeuro Student Talk	Oct 2025
Johns Hopkins University, CogSci Brown Bag Talk	Apr 2025
KAIST, EE635: Functional Neuroimaging	Oct 2019
PsyGrammar, Cognitive Science Open Talk	Sep 2019

Honors & Awards

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	2010

Teaching

Teaching Assistant, Johns Hopkins University	
Computational Cognitive Neuroscience of Vision	Spring 2024
Cognitive Neuropsychology	Fall 2021, Fall 2023
Cognitive Neuropsychology in Vision	Spring 2022
Cognitive Neuroscience	Spring 2021
Teaching Assistant, KAIST	
Electronics Design Lab	Spring 2019
Neural Networks	Fall 2018
Teaching Assistant, Carleton College	
Music Theory I & II	Fall–Winter 2012

Professional Experience

LG AI Research — Seoul, Korea
AI R&D Strategist — Sep 2022–Jun 2023

KAIST — Daejeon, Korea
Research Intern, hosted by Dr. Sang Ah Lee — Jan–May 2020

OBELAB — Seoul, Korea
Analysis Engineer — Jan–May 2017

Samsung Electronics — Seoul, Korea
Software Engineer — Feb 2014–Apr 2016