Cheol Jun Cho

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cheoljun95.github.io

EDUCATION

University of California, Berkeley — **Berkeley, CA, USA**
Ph.D. student in Computer Science — *Aug 2021 - Present*
Co-advised by **Prof. Jack L. Gallant** and **Prof. Gopala K. Anumanchipalli**

Seoul National University (SNU) — **Seoul, Korea**
B.S. in Computer Science and Engineering — *Mar 2014 - Aug 2020*
Summa Cum Laude & Valedictorian of the College of Engineering

AFFILIATION

Gallant Lab; **Berkeley Speech Group**; **Berkeley Artificial Intelligence Research (BAIR)**

RESEARCH FOCUS

My research lies in computational neuroscience, speech science, and human-centric AI:

- Human-centric, grounded representational learning for spoken language understanding
- Data-driven approaches for naturalistic neuroscience experiments
- General understanding of the conversational brain and AI
- AI-powered high-performance brain-computer interfaces

PUBLICATIONS

Cho, C. J., Chang, E.F., and Anumanchipalli, G.K. (2023). Neural Latent Aligner: Cross-trial Alignment for Learning Representations of Complex, Naturalistic Neural Data. *International Conference on Machine Learning (ICML 2023).*

Cho, C.J., Zhang, T., and Gallant, J. L. (2023). A variational autoencoder provides novel, data-driven features that explain functional brain representations in a naturalistic navigation task. Journal of Vision, 23 (In press).

Wu, P., Chen, L., **Cho, C.J.**, Watanabe, S., Goldstein., L., Black, A., Anumanchipalli, G.K. (2023). Speaker-Independent Acoustic-to-Articulatory Speech Inversion, *IEEE ICASSP 2023.*

Cho, C.J., Wu, P., Mohamed, A. and Anumanchipalli, G.K. (2023). Evidence of Vocal Tract Articulation in Self-Supervised Learning of Speech, *IEEE ICASSP 2023*

Cho, C.J., Chang, E., Mohamed, A. and Anumanchipalli, G.K., (2023). Cross-trial alignment reveals a low-dimensional cortical manifold of naturalistic speech production. *COSYNE 2023.*

Kim, J., Kim, C.*, Han, H., **Cho, C.J.**, Yeom, W., Lee, S.Q*, Choi, J.H.* (2020). A Bird's Eye View of Brain Activity in Socially Interacting Mice through Mobile Edge Computing (MEC). *Science Advances*, 6(49).

Lee, Y., **Cho, C.J.***, Kim, J., Kim, J.H., Han, H., Ahn, W., Choi, J.H. (2020). Investigation of hierarchy-dependency in the intragroup vigilance convergence and transmission, the 23rd annual meeting of *the Korean Society for Brain and Neural Sciences*, poster presentation. *selected as excellent poster (* equal contribution)*

AWARDS AND HONORS

Kwanjeong Study Abroad Scholarship (funding for PhD program up to 5 years)	Jul 2021
President's Award for 1st ranked graduation at SNU College of Engineering	Aug 2020
Best research award from 2019 Brain-Mind-Behavior Research Presentation at SNU	Dec 2019
1st place of International Capstone Design Fair 2019 (Korea, China)	Nov 2019
2nd place of SNU Creative Design Fair of SNU College of Engineering	Sep 2019
SNU's Tomorrow's Engineers Membership (honor society of college of engineering)	May 2016
Korea National Scholarship (fully funded)	2016 Spring, 2018 Fall-2019 Fall
Army Commendation Medal (ARCOM)	Jun 2018
Certificate of Appreciation (CA) from US 8th Army	Jun 2018
SNU Merit Scholarship (fully funded)	2015 Spring,Fall
SNU Merit Scholarship (half funded)	2014 Fall

PAST RESEARCH EXPERIENCE

Computational Clinical Science Laboratory **SNU, Seoul, Korea**
Computational Psychiatry; Cognitive Science; Computational Neuroscience *Sep 2020 - Jul 2021*
Research Assistant, Advisor: **Dr. Woo-Young Ahn**

JeeLab, Center for Neuroscience, Brain Science Institute **KIST, Seoul, Korea**
Computational Neuroscience; Cognitive Neuroscience; System Neuroscience *Jul 2020 - Dec 2020*
Research Intern, Advisor: **Dr. Jee Hyun Choi**

KAIST Interaction Laboratory (KIXLab) **KAIST, Daejeon, Korea**
Human Computer Interaction; Natural Language Processing *Jun 2019 – Aug 2019*
Summer Research Intern, Advisor: **Dr. Juho Kim**

Computing and Memory Architecture Laboratory (CMALab) **SNU, Seoul, Korea**
Computer Vision *Dec 2018 – Jun 2019*
Research Intern, Advisor: **Dr. Sungjoo Yoo**

OTHER SERVICES AND ACTIVITIES

STEM Mini Vision Mentoring **2016, 2019**
- Visited middle and high schools as a mentor.
- Introduced Engineering School, especially about Computer Science
- Shared my own learning strategies and experiences.

Korean Augmentation to the United States Army (KATUSA) **Sep 2016 - Jun 2018**
- Served in 8th Army HHB IS G4 Information Management Office.
- Supported electrical automation and equipment maintenance for operations.

S20 project contest by Shinhan Bank **Mar 2016 - Jun 2016**
- Won 1st place as SNU's Tomorrow's Engineers Membership team.
- Presented idea for smart banking with AI technologies.