

Minsung Cho

CONTACT INFORMATION

nninept@gmail.com

WEB PAGE

<https://nninept.github.io/>

EDUCATION

M.S., Korea Aerospace University

3. 2023 - 8. 2024

BS-MS integrated program, *Advisor: Jay Hoon Jung*

B.S. in Engineering, Korea Aerospace University

3. 2019 - 2. 2023

RESEARCH EXPERIENCE

Visiting Researcher,

11. 2024 - 5. 2025

University of North Carolina at Chapel Hill

UNC Neuroscience Center, *Advisor: Adam Hantman*

- Built, optimized, and compared performance of multiple artificial neural network models (ANN) to decode behavior kinematics from large-scale electrophysiology data
- Compared the amount of behaviorally meaningful information recovered by ANN models to that captured by commonly used low dimensional embeddings.

Undergrads Research Assistant,

3. 2021 - 6. 2021

Daegu Gyeongbuk Institute of Science and Technology (DGIST)

Future Vehicle Research Department. *Advisor: Soon Kwon*

- Developed integrated onboard software for real-time vehicle and environment monitoring, contributing to a self-driving system capable of autonomous operation (Level-4)
- Optimized the autonomous driving onboard software and Controller Area Network (CAN) interface for integration with mobile phone operating systems.

PUBLICATIONS

(In Submission) Minsung Cho, Jaesung Yoo, Stefan M. Lemke, Jian-Zhong Guo, Adam Hantman. *Temporal and Representational Dynamics in Neural Decoding: Linear and Nonlinear Models for Position and Velocity Prediction*.

Minsung Cho, Jae Hyeon Kim, Jay Hoon Jung. *RaCUN : Research for Activation Function Based on Random Sampling to Increase the Robustness of Neural Network*. Proceeding of the Korea Artificial Intelligence Conference (2023)

POSTER PRESENTATION

Minsung Cho, Jaesung Yoo, Stefan M. Lemke, Jian-Zhong Guo, Adam Hantman. *Decoding Movement from Neural Spike Trains : A Comparison of Linear and Nonlinear Models across Brain Regions and Temporal Delays*. Conference on Cognitive Computational Neuroscience (CCN), 2025.

Minsung Cho, Jay Hoon Jung. *Toward Structural Similarities between the Brain and Neural Networks*. Conference on Cognitive Computational Neuroscience (CCN), 2024.

HONORS & AWARDS

AI/Robotics Collaborative Research Program Korea University, KIAT 11.2024 - 5.2025

- Received full funding to support a 6-month research project at the University of North Carolina at Chapel Hill as a visiting researcher

Creative Innovation Leader Scholarship KT Group Hope Sharing Foundation 2020

- Half-tuition scholarship for one semester

TEACHING & LEADERSHIP

Machine Learning Study Club Leader Korea Aerospace University 3. 2020 - 2. 2023

Undergraduate Students Teaching Assistant Korea Aerospace University Spring 2022

- Machine Learning (XW4423)

Undergraduate Students Teaching Assistant Korea Aerospace University Fall 2021

- Introduction of Programming (XW3106)

EXTRACURRICULAR ACTIVITY

2022 Open Source Contribution 2022

- Enhanced the stability of PyTorch Lightning Framework source code

2021 Open Source Contribution 2021

- Translated PyTorch Framework official documentation to Korean

SKILLS

- Python : NumPy, PyTorch, Matplotlib, Pandas, Hydra
- File managing using Git/Github - <https://github.com/nninept>
- High-performance computing using on SLURM workload manager