Han-seul Cho (조한슬)

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Research interests	Any topics that applies mathematics beyond mathematics. For example, AI/ML, deep learning, fairness of ML, de-biasing ML, human-AI interaction, natural language processing, convex/nonconvex optimization, large batch training, statistical inference & prediction, (biomedical) imaging, etc.

Education

Graduate School of AI, KAIST   Daejeon, Republic of Korea
Master   Mar. 2022 – (Unspecified)

KAIST   Daejeon, Republic of Korea
Undergratuate   Mar. 2017 – Feb. 2022(expected)
Major in Mathematical Sciences
Minor in Computer Sciences
Credits Completed: 153   (2021 Spring)
GPA: 4.05/4.3   (2021 Spring)

University of Twente   Enschede, Netherlands
Exchange Student   Feb. 2020 – Jul. 2020
Major in Applied Mathematics
Grade: 9/10

Incheon Science High School   Incheon, Republic of Korea
(Early Graduation)   Mar. 2015 – Feb. 2017

Research experience

KAIST 2021 Post-AI research project   May 2021 – Dec. 2021(Expected)
Project name: "Research on 'AI-augmented Organizations' of Collaborative Decision Making and Learning"
Principal Investigator: Sangyoon Yi (SOIL Lab, Grad. School of Future Strategy, KAIST)
Collaborative Researcher & Advisor: Jinkyoo Park (Systems Intelligence Lab, Industrial & Systems Eng., KAIST)

Algorithmic Intelligence Laboratory
Individual Study   Mar. 2021 – Jun. 2021
Advisor: Jinwoo Shin (ALIN-LAB, Grad. School of AI, KAIST)
Studied about optimizers for 'large batch training' such as LARS and LAMB; Performed an experiment on MNIST dataset to test performance of "modified" optimizer which combines the idea of "Layer-wise Learning Rate Scaling" and "Gradient Clipping"
Refer to this link: github.com/HanseulJo/LARS_GradClip

Bio Imaging, Signal Processing and Learning Lab

Individual Study   Sep. 2020 – Feb. 2021

Advisor: Jong-chul Ye (BISPL, Bio and Brain Eng., KAIST)

Assignment: Semantic Segmentation of Kidney Tumor with U-Net (KiTS19 Challenge); test dice of kidney has reached ≥0.95

Statistics Lab

Individual Study   Jul. 2020 – Aug. 2020

Advisor: Yeon-seung Chung (Mathematics, KAIST)

Read and self-studied the book '*An Introduction to Statistical Learning (Springer)*' (Chap. 1–5)

Clinical Neuroscience & Development Lab

Pre-URP Program (as a high school student)   Jan. 2016

Advisor: Bum-seok Jeong (Medical Sci. and. Eng., KAIST)

Participated in a research project "Finding reliable biomarkers related with distraction of voluntary attention"

Honors and scholarships	**Dean's List** (The School of Freshman, KAIST) Fall, 2017 **The National Scholarship for Science and Engineering** (Korea Student Aid Foundation) 2017 – 2020
Skills	**Programming Language & Platform** *Familiar*: Python, Matlab + Pytorch, Jupyter, Colab, LaTeX *Novice*: C, C++, R, Scalar, etc. + Git, Kaggle **Language – English** TOEIC: 925 (LC 460, RC 465) (2021.04.11)