## Han-seul Cho (조한슬)

Email: jhs4015@kaist.ac.kr GitHub: github.com/HanseulJo

Research interests Any topics that applies mathematics beyond mathematics.

> For example, AI/ML, deep learning, nonconvex optimization, large batch training, human-AI interaction, natural language processing(want to learn more

later), statistical inference & prediction, (biomedical) imaging, etc.

Education **KAIST** Daejeon, Republic of Korea

> Mar. 2017 - Feb. 2022(expected) Undergratuate

Major in Mathematical Sciences Minor in Computer Sciences Credits Completed: 153

GPA: 4.05/4.3

**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

Mar. 2015 - Feb. 2017 (Early Graduation)

Research experience **KAIST 2021 Post-AI research project** May 2021 – Dec. 2021(Expected)

Project name: "Research on 'AI-augmented Organizations' of Collaborative De-

cision 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; (informally) proposed two optimizers 'LGC' and 'LaRSPaG' combining the idea(s) of LARS 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  $\geq 0.93$ 

## **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 dis-

traction 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** 

Experienced: Python, Pytorch, Matlab.

Have ever used once: C, C++, R, Scalar, Jupyter