JAEHOAN KIM

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EDUCATION

Seoul National University (SNU)   Mar. 2016 – Present
Double Major in Statistics and Mechanical Engineering (*Summa Cum Laude expected*)
GPA 4.02/4.3, Statistics Major GPA 4.15/4.3
Leave of absence for mandatory military service (Feb. 2018 - Jan. 2020)

Gyeonggi Science High School   Mar. 2013 – Feb. 2016
Specialized high school for gifted students in mathematics and science, 1 year early entrance

PUBLICATIONS

1. **JaeHoan Kim**, Jaeyong Lee,"Identifiability of Covariance Kernels in the Gaussian Process Regression Model", Accepted, *Journal of the Korean data & information Science Society*, https://arxiv.org/abs/2108.04715

RESEARCH INTEREST

Estimation Theory
Multivariate Data Analysis
Interdisciplinary Studies
Machine Learning

RESEARCH EXPERIENCE

High dimensional multiple testing Laboratory, *Seoul National University*   Jun. 2021 – Present
Research Internship (Advisor: Prof. JunYong Park)
- Currently writing thesis paper comparing performances of linear classifiers in high-dimensional situation
- Studied various estimation methods of precision matrix in high dimensional classification
- Studied non-parametric mean estimation methods related to Stein's paradox

Bayesian Statistics Research Laboratory, *Seoul National University*   Aug. 2020 – Jun. 2021
Research Assistant (Advisor: Prof. Jaeyong Lee)
- Revealed and proved about identifiability problem in Mixed Gaussian Process Regression Model
- Experimented and analyzed about thermal conductivity of metals in Bayesian aspect

WORK EXPERIENCE

KBrainLab LLC.   Jun. 2021 – Present
Startup which provides Korean lottery number recommendation service
- Developed and validated algorithm improving expected value of lottery customers
- Formulated algorithm to ensure 100% of winning high-rank lottery in a group aspect
- Took an initiative of founding as a Chief Technical Officer / Co-founder

20th Fighter Wing, *Republic of Korea Air Force*   Feb. 2018 – Jan. 2020
- Served and honorably discharged from Republic of Korea Air Force, Staff Sergeant

AWARDS

39th University Students Contest of Mathematics, *Korean Mathematical Society*   Nov. 2020
Grand Prize (1st place)

38th University Students Contest of Mathematics, *Korean Mathematical Society*   Nov. 2019
Gold Prize (2nd place)

31th Korean Mathematics Competition, *Korean Society of Mathematical Education*   Nov. 2015
Grand Prize (1st place)

SNU Engineering Honor Society (STEM), *Seoul National University* Sep. 2020 - Present
Used to be Recruiting chief, currently member of STEM

Young Engineer's Honor Society, *The National Academy of Engineering of Korea* Feb. 2021 - Present
Currently Deputy head in Strategy & Planning 1 Dpt.

Hyunsong Education & Culture Foundation Feb. 2017 - Present
Merit–based scholarship

TEACHING EXPERIENCES

Mathematical Statistics 2, *Seoul National University* Sep. 2021 - Present
Hosted 10+ tutoring sessions in Mathematical Statistics 2, a requisite course for juniors
in Dept. of Statistics

Dynamics and Fluid Mechanics, *Seoul National University* Sep. 2020 - Feb. 2021
Hosted 10+ tutoring sessions in Dynamics and Fluid Mechanics, a requisite course for juniors
in Dept. of Mechanical Engineering

Mathematics (*Calculus & Linear Algebra*), *Seoul National University* Jan. 2020 - Feb. 2020
Assisted 10 freshmen with 5+ assignments and comments about mathematics course

EXTRACURRICULAR ACTIVITIES

AI Tech Play Jan. 2021 - Aug. 2021
Adapted educational resource about autonomous RACECAR of MIT Lincoln Laboratory
for 200+ middle school students in Korea as a team leader

Campus Mentoring Program, *Seoul National University* Aug. 2020 - Dec. 2020
Assisted adaption of 15 freshmen to university life as a mentor group leader

SNU Buddy, *Seoul National University* Mar. 2020 - Jun. 2020, Mar. 2021 - Present
Assisted exchange students to adapt through buddy program

Vice President, *Global Inter-culturing and Volunteering* Aug. 2017 - Dec. 2017
Organized camps and activities for the equal opportunity of education for students in
underprivileged areas

Dream Camp Mentoring, *Seoul National University* Jul. 2017
Conducted mentoring program about "how to materialize one's dream" for high school students in
countryside

Volunteer Camp, *Global Inter-culturing and Volunteering* Jan. 2017, Aug. 2017, Jan. 2018
Conducted extracurricular education for elementary school students in under-
privileged areas as a team leader

Volunteer Camp, *Global Inter-culturing and Volunteering* Aug. 2016
Conducted various volunteers in Cambodia including education for 40+ elementary school students

SKILLS

Programming: R, Python, MATLAB, C++, Javascript
Document Creation: LaTex, R Markdown
English Skill: iBT: 109 (R30, L30, S22, W27), GRE: Verbal 157, Writing 4.0
GRE Subject Test: Mathematics (Scaled Score: 970, Percentile: 97%)