Jiseok Chae
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https://jsch8q.github.io/

Address
E2-1 3227, KAIST
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Jiseok Chae
채지석

Education

Mar. 2021 – Present, KAIST
Integrated M.S./Ph.D. Program, Mathematical Sciences
- Advisor : Prof. Donghwan Kim

Mar. 2016 – Feb. 2021, KAIST
B.S., Mathematical Sciences
Minor: Computer Science

Interests

Professional
- Continuous Optimization for Machine Learning
- Design and Analysis of Machine Learning Algorithms
- Computational Mathematics

Publications

Two-timescale Extragradient for Finding Local Minimax Points
Jiseok Chae, Kyuwon Kim, Donghwan Kim
Twelfth International Conference on Learning Representations (ICLR 2024)

Open Problem: Is There a First-Order Method that Only Converges to Local Minimax Optima?
Jiseok Chae, Kyuwon Kim, Donghwan Kim
36th Annual Conference on Learning Theory (COLT 2023)

HEaaN-STAT: a privacy-preserving statistical analysis toolkit for large-scale numerical, ordinal, and categorical data
Younho Lee, Jinyeong Seo, Yujin Nam, **Jiseok Chae**, Jung Hee Cheon
IEEE Transactions on Dependable and Secure Computing, Issue 4, 2023

Invited/Contributed Talks

2024 Korean Mathematical Society Spring Meeting
"Stochastic extragradient with flip-flop shuffling & anchoring"

2023, SAARC ColLabor Workshop
"Two-timescale Extragradient for Finding Local Minimax Points"

Professional Experience

Jun. 2019 – Aug. 2019, *Research Programmer Internship*, CryptoLab
- Developed HEaaN.STAT, a statistical data analysis program using the homomorphic encryption scheme HEaaN.
  - Joint work with **Korea Credit Bureau**

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Teaching Experience

KAIST

- *Head Teaching Assistant*:
  - MAS110 Linear Algebra for Data Science

    2022 Spring – 2024 Spring

    * The founding head TA of the newly established course.
- *Programming Teaching Assistant*:
  - MAS109 Introduction to Linear Algebra

    2022 Spring – 2024 Spring

    * Director of teaching MATLAB and designing MATLAB materials
    * Planner of programming assignments throughout the semester
- *Teaching Assistant*:
  - MAS101 Calculus I   2021 Spring, 2021 Fall
  - MAS374 Optimization Theory   2021 Fall
- *Undergraduate Teaching Assistant*:
  - MAS101 Calculus I   2018 Spring, 2019 Spring
  - MAS102 Calculus II   2018 Fall

Honors and Awards

Graduated *summa cum laude*
Undergraduate GPA : 4.06/4.3   Feb. 2021

National Academic Excellence Scholarship (Science and Engineering) (국가우수장학금(이공계))
Korea Student Aid Foundation (KOSAF)   2016–2020

Dean's List
College of Natural Sciences, KAIST   2019 Spring
School of Freshman, KAIST   2016 Spring

Talent Award of Korea (대한민국인재상)
Ministry of Education   2015

Skills

(Natural) Languages
- Korean (First Language)
- English (Native Level of Proficiency: New TEPS 532/600)
- Japanese (High-Intermediate Level: SNULT 72/100)

(Programming) Languages & Software:
- Python (including NumPy, PyTorch, . . .)
- MATLAB   ○ C++   ○ LaTeX

Other Activities

- *Regular member* of the Korea Cube Culture United (KCCU)