

Jiseok Chae
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Daejeon 34141, Republic of Korea

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

Stochastic Extragradient with Flip-Flop Shuffling & Anchoring: Provable Improvements

Jiseok Chae, Chulhee Yun, Donghwan Kim

38th Annual Conference on Neural Information Processing Systems

(NeurIPS 2024)

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

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:*
 - MAS473 Introduction to AI with Mathematics 2024 Fall
 - MAS374 Optimization Theory 2021 Fall
 - MAS101 Calculus I 2021 Spring, 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

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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”

Other Activities

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