# JAEWOOK LEE

#### **Personal Information**

Kim Jaechul Graduate School of AI, PHONE +82-10-3539-1857

> Korea Advanced Institute of Science and Technology, EMAIL 99rma37 (at) kaist.ac.kr 85 Hoegi-ro, Dongdaemun-gu, Seoul, South Korea Website id8198.github.io

#### **Education**

Korea Advanced Institute of Science and Technology Seoul, South Korea Current

> M.S. in Artificial Intelligence GPA: 4.25 / 4.3 (Current)

**Feb** 2023 Korea Advanced Institute of Science and Technology Daejeon, South Korea

B.S. in Electrical Engineering & Mathematical Sciences (Double Major)

GPA: 4.07 / 4.3, SUMMA CUM LAUDE

Graduated with Excellence in Leadership and Volunteer Activity

Sejong Science High School Seoul, South Korea FEB 2018

#### **Research Interests**

- Optimization
  - Convex & Minimax Optimization
  - (Block) Coordinate Descent Algorithms
  - Wasserstein Gradient Flows & Algorithms
- ML/DL Theory
  - Generalization Bounds of Learning Algorithms
  - Implicit Bias & Dynamics of Deep Learning Optimizers

#### **Publications**

- [1] Jaewook Lee\*, Hanseul Cho\*, Chulhee Yun. Fundamental Benefit of Alternating Updates in Minimax Optimization. Proceedings of the 41st International Conference on Machine Learning (ICML), 2024. Spotlight.
- [2] Jaeyoung Cha, Jaewook Lee, Chulhee Yun. Tighter Lower Bounds for Shuffling SGD: Random Permutations and Beyond. Proceedings of the 40th International Conference on Machine Learning (ICML), 2023. Oral.

#### **Awards & Honors**

KAIST MAS, PoW (Math Problem of the Week) - 3<sup>rd</sup> Prize FALL 2021

KAIST EE, Dean's List Award Spring 2021

FALL 2020 KAIST, Honor Student

FALL 2020 KAIST EE, Academic Excellence Scholarship

FALL 2020 KAIST EE, Dean's List Award FALL 2019

KAIST EE, Dean's List Award

FALL 2018 KAIST, Freshman Dean's List Award

#### **Professional Services**

Reviewer. NeurIPS 2024, JMLR 2024

### Teaching Experience

KAIST Freshman Tutoring Program. General Physics I (2019 Spring), Calculus II (2020 Fall)

<sup>\*</sup>Equal Contribution.

## **Skills**

Languages: English (*Highly Proficient, TOEIC 985/990*), Korean (*Native*) Computer Languages: Python (PyTorch Libraries), MATLAB, ŁTĘX

### **Extracurricular Activities**

2018-2022	KAIST Orchestra First Violinist
2019	KAIST Orchestra Concertmaster
2018-2021	KAIST EDGE (Table Tennis Club) Member
2018-2019	KAIST FSC (Freshman Student Council)
2019-2020	KAIST FEEL (EE Conference Camp) Program Director
2020	KAIST 50 <sup>th</sup> Anniversary Conference "Pioneers: 2071"
	Program Director, Scenario Author & Assistant MC
2020	KAIST UA Bureau of Welfare & Bureau of International Affairs
2021	KAIST UA Executive Secretariat
2020-2022	KAIST CGC (Communication Globalization Committee) Translator