Suho Shin

Ph.D. Student at University of Maryland, College Park

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RESEARCH INTEREST

I'm broadly interested in the intersection of microeconomics, theoretical computer science and learning theory. This includes algorithmic game theory/mechanism design, information design, social learning/choice, and their interface with approximate/randomized/online algorithm, computational complexity, and multi-armed bandits.

EDUCATION

University of Maryland, College Park   Maryland, USA
Ph.D. in Computer Science   Sep. 2022 –

- Advisor: Prof. MohammadTaghi Hajiaghayi

Korea Advanced Institute of Science and Technology   Daejeon, South Korea
M.S. in Electrical Engineering   Mar. 2016 – Jan. 2018

- Advisor: Prof. Yung Yi

Korea Advanced Institute of Science and Technology   Daejeon, South Korea
B.S. in Mathematical Sciences   Mar. 2011 – Feb. 2016

PUBLICATION

(α, β) *denotes alphabetical order of authorship, which is common in theoretical computer science/econ/math community.*

Replication-proof Bandit Mechanism Design
$^{\alpha,\beta}$S. Esmaeili, M. Hajiaghayi, S. Shin   Under review

Almost Tight Guarantees for Online Nash Social Welfare Maximization
$^{\alpha,\beta}$K. Banihashem, M. Hajiaghayi, E. Martinez, S. Shin, M. Springer   Under review

A Regret Analysis of Repeated Delegated Choice
$^{\alpha,\beta}$M. Hajiaghayi, M. Mahdavi, K. Rezaei, S. Shin   Under review

An Improved Relaxation for Oracle-Efficient Adversarial Contextual Bandits
$^{\alpha,\beta}$K. Banihashem, M. Hajiaghayi, S. Shin, M. Springer   Under review

Bandit Social Learning under Myopic Agents
$^{\alpha,\beta}$K. Banihashem, M. Hajiaghayi, S. Shin, A. Slivkins   Under review

Delegating to Multiple Agents
$^{\alpha,\beta}$M. Hajiaghayi, K. Rezaei, S. Shin   EC'23

Multi-armed Bandit Algorithm against Strategic Replication.
S. Shin, S. Lee, J. Ok   AISTATS'22

Power of Bonus in Pricing for Crowdsourcing.
S. Shin, H. Choi, Y. Yi, J. Ok   SIGMETRICS'22

HONORS & AWARDS

Gradute School Summer Research Fellowship — USA
University of Maryland — Summer 2023

Dean's Fellowship — USA
University of Maryland — Fall 2022 – Fall 2024

The National Scholarship for Science and Engineering — South Korea
Korea Student Aid Foundation — Spring 2011 – Fall 2017

Dean's Award for Entrance — South Korea
Korea Advanced Institute of Science and Technology — Spring 2011

Gold Medal, Korean Mathematical Olympiad — South Korea
Korean Mathematical Society — Fall 2008

VISITS & INTERNSHIPS

Visiting Student — University of Liverpool
Host: Prof. Piotr Krysta — Jul 2023

Visiting Student — SLMath, UC Berkeley
Topic: Mathematics and Computer Science of Market and Mechanism Design — Jun 2023

Research Intern — Machine Learning Lab, Postech
Host: Prof. Jungseul Ok — Summer 2022

ACADEMIC SERVICE

External Reviewer
NeurIPS'23, AISTATS'22

TALKS

Delegating to Multiple Agents — Arizona, USA
INFORMS Annual Meeting, Auctions and Market Design — Oct. 2023

Delegating to Multiple Agents — London, UK
ACM Conference on Economics and Computation (EC) — Jul. 2023

Power of Bonus in Pricing for Crowdsourcing — Virtual
Proceedings of the ACM on Measurement and Analysis of Computing Systems (POMACS) — Jun. 2022

Multi-armed Bandit Algorithm against Strategic Replication — Virtual
International Conference on Artificial Intelligence and Statistics (AISTATS) — Mar. 2022

Mechanism Design and Multi-armed Bandit — Virtual
Machine Learning Lab, Postech — Feb. 2022

TEACHING

Design and Analysis of Computer Algorithms (CMSC451)
Teaching Assistant

Spring 2023
UMD

Introduction to Computational Game Theory (CMSC474)
Teaching Assistant

Fall 2022
UMD

Data Structure and Algorithms for Electrical Engineering (EE205)
Teaching Assistant

Fall 2017
KAIST

Computer Networks (EE323)
Teaching Assistant

Spring 2017
KAIST

INDUSTRY

LINE plus Corporation, LINE Advertisement Platform
Data Scientist; Technical Research Personnel for Military Service

Seongnam, South Korea
Oct. 2020 – Apr. 2022

Coupang, Product, Search and Discovery Platform
Software Engineer; Technical Research Personnel for Military Service

Jamsil, South Korea
Aug. 2018 – Sep. 2020