# 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

Ph.D. in Computer Science

• Advisor: Prof. MohammadTaghi Hajiaghayi

### Korea Advanced Institute of Science and Technology

M.S. in Electrical Engineering

• Advisor: Prof. Yung Yi

#### **Korea Advanced Institute of Science and Technology**

B.S. in Mathematical Sciences

Maryland, USA Sep. 2022 -

Daejeon, South Korea

Mar. 2016 - Jan. 2018

Daejeon, South Korea

Mar. 2011 - Feb. 2016

#### **PUBLICATION**

 $(\alpha, \beta)$  denotes alphabetical order of authorship, which is common in theoretical computer science/econ/math community.

#### **Price of Class Fairness in Online Matching**

 $^{\alpha,\beta}M$ . Hajiaghayi, S. Jahan, M. Sharify, S. Shin, M. Springer

Under review

#### **Incentivizing Performance in Bandits with Strategic Arms**

 $^{\alpha,\beta}$ S. Esmaeili. S. Shin. A. Slivkins

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. Mahdayi, 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

NeurIPS'23

#### **Bandit Social Learning under Myopic Agents**

 $^{\alpha,\beta}K$ . Banihashem, M. Hajiaghayi, S. Shin, A. Slivkins

NeurIPS'23

#### **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

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Power o	ot Bonus	ın	Pricing	tor	Crowd	Isourcing.

S. Shin, H. Choi, Y. Yi, J. Ok SIGMETRICS'22

#### **HONORS & AWARDS**

Gradute School Summer Research Fellowship

USA

University of Maryland (declined) 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**

#### Reviewer

NeurIPS'23,AISTATS'22

#### **TALKS**

Delegating to Multiple Agents

Arizona, USA

INFORMS Annual Meeting, Award Session 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**

Introduction to Computational Game Theory (CMSC474)	Fall 2023
Teaching Assistant	UMD
Design and Analysis of Computer Algorithms (CMSC451)	Spring 2023
Teaching Assistant	UMD
Introduction to Computational Game Theory (CMSC474)	Fall 2022
Teaching Assistant	UMD
Data Structure and Algorithms for Electrical Engineering (EE205)	Fall 2017
Teaching Assistant	KAIST
Computer Networks (EE323)	Spring 2017
Teaching Assistant	KAIST
INDUSTRY	
LINE plus Corporation, LINE Advertisement Platform	Seongnam, South Korea
Data Scientist	Oct. 2020 – Apr. 2022
Coupang, Product, Search and Discovery Platform	Jamsil, South Korea
Software Engineer	Aug. 2018 – Sep. 2020