Soheun Yi

Curriculum Vitae

Education

2017–Present	**B.S. in Mathematics at Seoul National University**, *GPA: 4.21/4.3*.
	○ Major GPA: 4.23/4.3
	○ Dean's List: Spring 2017–Fall 2019, Fall 2021–Spring 2022
2014–2017	**Seoul Science High School**, *GPA: 4.29/4.3*.
	○ Graduated with Excellence Awards

Research Interests

Optimization via operator splitting scheme

Causal discovery

Experience

Research

2021–Present	**Research Intern at Ryu's Optimization Group**.
	Convergence analyses of Davis–Yin splitting via scaled relative graphs.
2019	**Research Intern at Hyungbin Park's Lab**.
	Stochastic optimal control.

Employment

2019–2021	**Quantative Analyst at Hyperithm**, *Seoul*.
	Served as an alternative for mandatory military service
	Developed cryptocurrency trading strategies
	○ Scalable options market simulation
	○ Transaction monitoring and analysis
	○ Portfolio management assistant

Teaching

2019	**Deputy Leader of Team Korea at Romanian Master of Mathematics**.
	Team Korea: 2nd place.
2018	**Teaching Assistant at Korea Mathematics Olympiad Winter School**, *KAIST*.
2014-2019	**Voluntary Teaching for Low-income Children**.

Publications

2022   Jongmin Lee*, **Soheun Yi***, and Ernest K. Ryu, "Convergence Analyses of Davis-Yin Splitting via Scaled Relative Graphs", preprint, 2022, arXiv:2207.04015.

Awards and Honors

2020	Simon Marais Mathematics Competiton, *Pair Merit Prize*
2019–Present	Undergraduate Scholarship from Korea Foundation for Advanced Studies
2018	Korea Undergraduates Mathematics Competition, *Field 1 Gold Prize*
2017–Present	Presidential Science Scholarship from Korea Student Aid Foundation
2016	Korea Final Candidates for International Mathematical Olympiad(IMO)
2016	Asian Pacific Mathematical Olympiad(APMO), *Bronze Award*
2016	Romanian Master of Mathematics, *Silver Medal*

Selected Courses

Mathematics

Undergraduate
- Numerical Analysis, Mathematical Optimization, Financial Mathematics, Topology, Differential Geometry, Differential Equations.

Graduate
- Real Analysis, Functional Analysis, Topics in Applied Mathematics: Infinitely Large Neural Networks.

Others

Undergraduate
- Mathematical Statistics, Regression Analysis, Game Theory and Applications.

Graduate
- Scalable High Performance Computing, Graph Neural Networks, Reinforcement Learning.

Extracurricular

2021	Visualizing Interpolation Methods. Github Repo., Github Sites
2019-2020	SNU Vocal and Hip-hop Club "Triple-H"
2017-2018	Leader, Vocal of Band "Limsup"

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*Equal contribution.