# 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

2022–Present Graduate Scholarship from Korea Foundation for Advanced Studies

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.