

# SIMO RYU

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Blog : [fb.com/MLPaperFetchingCat](https://fb.com/MLPaperFetchingCat) Github : [github.com/cloneofsimo](https://github.com/cloneofsimo)

## HONORS AND AWARDS

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<b>2021 Google HashCode Qualification Round</b> <u>4th Place in South Korea (55th Place WorldWide), Team <i>boots jeon cats</i></u>	Spring 2021
<b>2020 Google HashCode Qualification Round</b> <u>2nd Place in South Korea (61th Place WorldWide), Team <i>boots jeon cats</i></u>	Spring 2020
<b>2021 MAIC Sleep AI Challenge</b> <u>8th Place, Team <i>BOREL</i></u>	Spring 2021
<b>ICPC Seoul Regional</b> <u>17th Place, Team <i>Amoeba</i></u>	Winter 2020
<b>ICPC Seoul Regional</b> <u>28th Place, Team <i>Cat Is All You Need</i></u>	Winter 2021
<b>2021 University Students Contest of Mathematics (2nd Track)</b> <u>Silver Award</u>	Winter 2021
<b>2019 University Students Contest of Mathematics (2nd Track)</b> <u>Silver Award</u>	Fall 2019
<b>Samsung AI Challenge for Scientific Discovery</b> <u>12th Place</u>	Fall 2021
<b>Graduation Thesis on Mathematics (Seoul Science High School)</b> <u>Grand Prize</u>	Winter 2018
<b>Research Task on Mathematics (Seoul Science High School)</b> <u>Grand Prize, Team participation</u>	Winter 2017
<b>2019 KCPC (1st Track)</b> <u>Excellence award</u>	Winter 2019
<b>31th Korean Mathematical Olympiad</b> Silver Prize	Winter 2017
<b>30th Korean Mathematical Olympiad</b> Gold Prize	Winter 2016
<b>제 2회 2020 금융 빅데이터 페스티벌, 보험금 분야</b> <u>7th Place on Public Scoreboard, Team <i>Financially Independent Cat</i></u>	Fall 2020

## EDUCATION

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<b>Korea University</b> Double Major : Cyber Defense & Business School GPA : 3.94/4.5	March 2019 – February 2023  Seoul, Korea
<b>Seoul Science High School</b>	March 2016 – December 2018 Seoul, Korea

## WORK EXPERIENCE

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### Research Intern

January 2020 – December 2020

Korea University Department of Information Security, SPAI Lab

Seoul, Korea

- Worked as research intern. Research on graph based mutual information model and sentiment analysis of major cryptocurrencies.
- Skillset : Spectral Graph theory, Information theory, Pytorch, Huggingface, networkx

### Research Intern

March 2021 – June 2021

Korea University Department of Information Security, Computer Systems Security Lab

Seoul, Korea

- Worked as research intern for binary code similarity project. Researched on code clone detection in malware

### Machine Learning Engineer

April 2021 – November 2022

Corca AI

Seoul, Korea

- Promotion Optimization: Developed and deployed mixture of Deep learning and optimization algorithm for retail supply prediction and promotion optimization. Created over 5% increase in gross profit
- DSP-Side Advertisement Auction Bidder : Developed Multitasking CTR prediction model and control-based algorithm for calibrated & provably optimal bidder
- Skillset : Time series forecasting, Neural ODE, Convex optimization (& Mixed Integer Programming), ONNX, Pytorch, GCP

### Machine Learning Engineer (Contract Work)

January 2022 – February 2023

Replicate

Berkeley, US (Remote)

- Collaborated with Replicate to deploy efficient fine-tuning of Stable Diffusion model to the cloud, enabling customization of stable-diffusion with warm-starting cloud instances.

## SKILLS

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**Languages:** Korean(Native), English (Fluent, TOEIC score 970)

**Algorithms, Problem Solving:** C/C++

**Machine Learning:** Pytorch, Pytorch-lightning, Huggingface, LightGBM, onnx, BentoML

**Optimization:** or-tools

**Web Frontend:** React, Gatsby, Threejs (novice)

**Web Backend:** Django, Nestjs, FastAPI (novice)