

# SEUNGYONG MOON

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## EDUCATION

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### Seoul National University

Mar. 2019 -

Ph.D. in Computer Science

Advisor: Hyun Oh Song

Relevant Coursework: Advanced Theory in Computation (4190.561), Probabilistic Graphical Models (M1522.001300), Neural Networks (M3309.002300)

### Seoul National University

Mar. 2011 - Feb. 2019

B.S. in Mathematics, B.A. in Economics, Minor in Computer Science

Honors: Summa Cum Laude

Relevant Coursework: Linear Algebra (300.203A), Real Analysis (881.425), Algorithms (4190.407), Introduction to Deep Learning (M2177.004300), Advanced Artificial Intelligence (4190.569)

Leave of absence to fulfill mandatory military service (2013 - 2015)

## PUBLICATIONS

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### Discovering Hierarchical Achievements in Reinforcement Learning via Contrastive Learning

**Seungyong Moon**, Junyoung Yeom, Bumsoo Park, Hyun Oh Song

Neural Information Processing Systems (NeurIPS), 2023

### Rethinking Value Function Learning for Generalization in Reinforcement Learning

**Seungyong Moon**, JunYeong Lee, Hyun Oh Song

Neural Information Processing Systems (NeurIPS), 2022

### Query-Efficient and Scalable Black-Box Adversarial Attacks on Discrete Sequential Data via Bayesian Optimization

Deokjae Lee, **Seungyong Moon**, Junhyeok Lee, Hyun Oh Song

International Conference on Machine Learning (ICML), 2022

### Preemptive Image Robustification for Protecting Users against Man-in-the-Middle Adversarial Attacks

**Seungyong Moon\***, Gaon An\*, Hyun Oh Song

AAAI Conference on Artificial Intelligence (AAAI), 2022

### Uncertainty-Based Offline Reinforcement Learning with Diversified Q-Ensemble

Gaon An\*, **Seungyong Moon\***, Jang-Hyun Kim, Hyun Oh Song

Neural Information Processing Systems (NeurIPS), 2021

### Parsimonious Black-Box Adversarial Attacks via Efficient Combinatorial Optimization

**Seungyong Moon\***, Gaon An\*, Hyun Oh Song

International Conference on Machine Learning (ICML), 2019

Selected as a long talk (159/3424=4.64%)

## AWARDS AND SCHOLARSHIPS

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NeurIPS Scholar Award	2023
NAVER Ph.D. Fellowship Award	2022
NeurIPS Top Reviewers	2022
Yulchon AI Star Scholarship	2022
KFAS Computer Science Graduate Student Scholarship	2019 - 2024
The National Scholarship for Science and Engineering	2015 - 2016
Gwanak Association Scholarship	2012

## TEACHING EXPERIENCE

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Teaching Assistant	Fall 2020, Fall 2022
Machine Learning (4190.666)	
Teaching Assistant	Spring 2019
Introduction to Deep Learning (M2177.0043)	
Undergraduate Student Instructor	Fall 2017
Basic Calculus 2 (033.017)	
Undergraduate Student Instructor	Spring 2017
Basic Calculus 1 (033.016)	

## WORK EXPERIENCE

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Research Intern	Jun. 2023 - Sep. 2023
KRAFTON, Seoul, South Korea	
Worked on reinforcement learning for gaming environments	
Research Intern	Jun. 2022 - Sep. 2022
DeepMetrics, Seoul, South Korea	
Worked on reinforcement learning for ventilator control	
Research Intern	Jul. 2017 - Aug. 2017
NAVER Search & Clova, Seongnam-si, South Korea	
Worked on data augmentation for paraphrase identification	

## ACADEMIC SERVICES

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Conference Reviewer
ICML (2022, 2023, 2024), NeurIPS (2021, 2022, 2023), ICLR (2024), AAAI (2022, 2023, 2024)
Journal Reviewer
Neurocomputing (2021), Machine Learning (2023), Transactions on Intelligent Vehicles (2023)

## SKILLS

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### Programming Languages and Frameworks

- Advanced: Python, PyTorch, TensorFlow, JAX, LaTeX
- Intermediate: C++, MATLAB

### Languages

- Korean (native)
- English (fluent)