

Daesol Cho

MACHINE LEARNING, ROBOTICS RESEARCHER

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Education

SNU (Seoul National University)

PH.D. IN MECHANICAL & AEROSPACE ENGINEERING

- Research topics: "Deep Reinforcement Learning, Robotics, Generative Model, Machine Learning."

Seoul, Korea

September. 2021 - Present

SNU (Seoul National University)

M.S. IN MECHANICAL & AEROSPACE ENGINEERING

- Thesis topic: "Dual-arm Manipulation Using Hierarchical Reinforcement Learning."

Seoul, Korea

September. 2019 - Aug. 2021

SNU (Seoul National University)

B.S. IN MECHANICAL & AEROSPACE ENGINEERING

- Thesis topic: "Dynamic Obstacle Removal in ORB-SLAM2 via CNN-based Object Detection."

Seoul, Korea

Mar. 2013 - Aug. 2019

Publication

Jigang Kim, **Daesol Cho*** and H. Jin. Kim. (2023). Demonstration-free Autonomous Reinforcement Learning via Implicit and Bidirectional Curriculum, International Conference on Machine Learning (ICML).

Daesol Cho*, Seungjae Lee* and H. Jin. Kim. (2023). [Spotlight] Outcome-Directed Reinforcement Learning by Uncertainty & Temporal Distance-Aware Curriculum Goal Generation, International Conference on Learning Representations (ICLR).

Daesol Cho*, Dongseok Shim* and H. Jin. Kim. (2022). S2P: State-conditioned Image Synthesis for Data Augmentation in Offline Reinforcement Learning", Neural Information Processing Systems (NeurIPS).

Jigang Kim, J. hyeon Park, **Daesol Cho** and H. Jin. Kim. (2022). [presented in ICRA 2023] Automating Reinforcement Learning With Example-Based Resets, IEEE Robotics and Automation Letters (RA-L).

Daesol Cho, Jigang Kim and H. Jin. Kim. (2022). [presented in IROS 2022] Unsupervised Reinforcement Learning for Transferable Manipulation Skill Discovery, IEEE Robotics and Automation Letters (RA-L).

Honors & Awards & Scholarships

2022-2023	Brain Korea 21 Plus (BK21+) Ph.D Fellowship Scholarship
2022	Lecture & Research Scholarship
2019	Summa Cum Laude, Seoul National University
2017-2018	National Scholarship for Science and Engineering
2017-2018	System Technology Excellence Foundation (STX Foundation) Domestic Scholarship
2013-2014	National Scholarship for Academic Excellence

Experience

Deepest, SNU deep learning society

RESEARCH GROUP PROJECT LEADER, MEMBER

- Conduct an offline RL project.
- Attend Kaggle on Kore 2022 challenges (Top 11% in competition).

Seoul, Korea

September. 2021 - August. 2022

Applied Nano and Thermal Science Lab (ANTS)

LABORATORY INTERNSHIP

- Conduct experiments for electromagnetic shielding (EMI-shielding).

Seoul, Korea

January. 2018 - August. 2018

Projects

Transfer of Driving Dynamics Parameter between Car Models

PROJECT LEADER

Hyundai Motor Company

Seoul, Korea

April. 2022 - Present

Transfer Learning for Multi-agent Systems

MEMBER

Agency for Defense Development

Seoul, Korea

October. 2019 - October. 2021

BabyMind: Infant-Mimic Developmental Machine Learning

MEMBER

Korea Ministry of Science and ICT

Seoul, Korea

April. 2019 - December. 2020

RL Application of an A/C Unit via Domain Randomization

MEMBER

LG Electronics

Seoul, Korea

August. 2019 - November. 2020

Extracurricular Activity

SNUOPEN Tennis Club in Seoul National University

MEMBER

Seoul, Korea

September. 2019 - Present

IMPACT Tennis Club in Seoul National University

MEMBER

Seoul, Korea

September. 2018 - August. 2019

Happy Move Volunteer Activity in Hyundai Motor Group

MEMBER

Chennai, India

January. 2014 - February. 2014

SNU Habitat in Seoul National University

MEMBER

Seoul, Korea

March. 2013 - February. 2015

Teaching

2020-2021	Teaching Assistant at Seoul National University (Aerospace Engineering Experiment).
2019	Teaching Assistant at Seoul National University (Introductory Engineering Probability).
2019	Tutor at Seoul National University (Basic Calculus).

Skills

Programming	Python, PyTorch, Tensorflow, Matlab, C/C++, LaTeX
Languages	Korean, English