Seungjae (Jay) Lee Robot Learning, Reinforcement Learning Email: sjaelee@umd.edu

Education & Affiliations

• University of Maryland, College Park

MD, USA

Ph.D. Student, Department of Computer Science

Sep. 2024 -

Advisor: Prof. Furong Huang and Prof. Jia-Bin Huang

• New York University

NY, USA

Researcher, CILVR Lab at NYU Advisor: Prof. Lerrel Pinto

(remote) Jul. 2023 - Mar. 2024

(in-person) Apr. 2024 - Jun. 2024

• Seoul National University

Seoul, Korea

M.S., Department of Aerospace Engineering

Mar. 2021 - Feb. 2023

Advisor: Prof. H. Jin Kim

• Seoul National University

Seoul, Korea

B.S., Department of Mechanical and Aerospace Engineering GPA: 3.99 (Major: 4.09)/4.30 (11th out of 144 graduating students)

Mar. 2015 - Feb. 2021 military service (2 years)

• Daegu Science High School

Daegu, Korea

Science high school for gifted students in science and mathematics

Mar. 2012 - Feb. 2015

Publications (* Equal Contribution) [Publications URL: sjlee.cc]

• Behavior Generation with Latent Actions

Seungjae Lee, Yibin Wang, Haritheja Etukuru, H. Jin Kim, Nur Muhammad Mahi Shafullah, Lerrel Pinto

ICML'24

International Conference on Machine Learning, 2024

• CQM: Curriculum Reinforcement Learning with a Quantized World Model Seungjae Lee, Daesol Cho, Jonghae Park, H. Jin Kim

NeurIPS'23

Conference on Neural Information Processing Systems, 2023

• Diversify Conquer: Outcome-directed Curriculum RL via Out-of-Distribution Disagreement Daesol Cho, Seungjae Lee, H. Jin Kim

NeurIPS'23

Conference on Neural Information Processing Systems, 2023

• SNeRL: Semantic-aware Neural Radiance Fields for Reinforcement Learning

Dongseok Shim*, Seungjae Lee*, H. Jin Kim

ICML'23

International Conference on Machine Learning, 2023

• Outcome-directed Reinforcement Learning by Uncertainty & Temporal Distance-Aware Curriculum

Goal Generation

[Spotlight]

Daesol Cho*, Seungjae Lee*, H. Jin Kim

ICLR'23

International Conference on Learning Representations, 2023

• Deep End-to-End Imitation Learning for Missile Guidance with Infrared Images Seungjae Lee, Jongho Shin, Hyeong-Geun Kim, Daesol Cho, H. Jin Kim

IJCAS'23

International Journal of Control, Automation and Systems, 2023

• DHRL: A Graph-Based Approach for Long-Horizon and Sparse Hierarchical Reinforcement Learning [Oral] NeurIPS'22

Seungjae Lee, Jigang Kim, Inkyu Jang, H. Jin Kim

Conference on Neural Information Processing Systems, 2022

• Robust and Recursively Feasible Real-Time Trajectory Planning in Unknown Environments Inkyu Jang, Dongjae Lee, Seungjae Lee, H. Jin Kim

IROS'21

IEEE/RSJ International Conference on Intelligent Robots and Systems, 2021

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Projects	
• Vector-Quantized Behavior Transformer for Multi-Modal Demonstrations Co-work with Generalizable Robotics and AI Lab (Prof. Lerrel Pinto) at New York University	Jul. 2023 - Jun. 2024
• Training Excavator Virtual Driver based on Inverse RL Co-work with HD Hyundai Heavy Industries Co., Ltd.	Apr. 2023 - Apr. 2024
• End-to-End Machine Learning Based Guidance Research Co-work with the Agency for Defense Development (National Research Institute of Korea)	May. 2021 - Apr. 2023
Teaching / Work Experience	
• AI Technical Coach, Teen Startup Team AI Music & Gallary Team, Applied Computing Foundation	Jun. 2023 - Jan 2024
• Teaching Assistant, 2023 Hyundai Motor Company AI Boosting Camp Innovation Center for Engineering Education, Seoul National University	Aug. 2023
• Teaching Assistant, Principles of Flight Vehicle Control (M2795.002600) Department of Aerospace Engineering, Seoul National University	Spring 2021
• Talent Internship Program, Samsung Electronics Co., Ltd. Deep Learning Algorithm Team, Device Solutions (DS)	Jul. 2020 - Aug. 2020
• Mentor & Camp Leader, Dream Consultant (NPO) Non-Protif Organization (NPO) for Social Contribution in Seoul	Jul. 2016 - Sep. 2020
• Tutor, Basic Physics 1 (034.005), Basic Physics 2 (034.006) Faculty of Liberal Education, Seoul National University Fall 2016	6, Spring 2019, Fall 2019
Awards / Achievements / Invited talks	
• (Invited Talk) LG tech talk, LG AI Research	Aug. 2023
• (Scholarship) Hyundai Motor Chung Mong-Koo Foundation	Sep. 2021 - Jun. 2023
• (Awards) Global Excellence Scholarship 2023, Hyundai Motor Chung Mong-Koo Found	dation Jun. 2023
• (Awards) Top Prize at SNU AI Institute Spring Retreat Best Poster Competition	May. 2023
• (Awards) Global Excellence Scholarship 2022, Hyundai Motor Chung Mong-Koo Found	dation Dec. 2022
• (Awards) NeurIPS Scholar Award	Dec. 2022
• (Awards) Brain Korea 21 (BK21) Aerospace Excellence Research Award	Feb. 2022
• (Awards) Graduated Summa Cum Laude, Seoul National University	Feb. 2021
• (Scholarship) OK Bae&Jung Scholarship Foundation	Mar. 2020 - Feb. 2021
Academic Services	
• Conference reviewer for ICML'22'24	
• Conference reviewer for IROS'23	

- Conference reviewer for NeurIPS'23
- Conference reviewer for ICLR'24
- Conference reviewer for ICRA'24