

Changyeon Kim

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Research Interest

My research centers on training intelligent robotic agents that are continuously improved in real-world deployments. To achieve this, I leverage Reinforcement Learning (RL) to develop robotic agents that learn new behaviors from online experiences. A key focus of my work has been advancing RL methods to support the training of complex, long-horizon behaviors and designing reward learning algorithms that accurately capture human intent, either through direct human feedback or by grounding in vision-language foundation models.

Education

Korea Advanced Institute of Science and Technology

M.S. + PH.D. IN ARTIFICIAL INTELLIGENCE

Advisor: Kimin Lee and Jinwoo Shin

Daejeon, S.Korea

Feb. 2022 - Present

Korea Advanced Institute of Science and Technology

B.SC. IN COMPUTER SCIENCE AND MATHEMATICS (MINOR)

Daejeon, S.Korea

Mar. 2016 - Feb. 2021

Work Experience

NVIDIA Seattle Robotics Lab

RESEARCH INTERN WITH YIJIE GUO AND YASHRAJ NARANG

Seattle, WA, USA

May. 2026 - Jul. 2026 (Expected)

Visiting PhD Student @ The University of Texas at Austin

WITH YUKE ZHU

- Developed an offline RL framework [C8] with action sequences suited for training with large-scale VLAs.
- Investigated effect of large-scale VLAs in continual learning paradigms [C11].
- Designed VLM-based reward framework encouraging human-aligned behaviors without human reward engineering.

Austin, TX, USA

Sep. 2024 - Jul. 2025

External Collaborator

WITH JOSEPH J. LIM (KAIST)

- Developed a visual reward learning algorithm [C4] for solving complex long-horizon robotic manipulations.

Mar. 2024 - June. 2024

External Collaborator

WITH LISA LEE (GOOGLE DEEPMIND)

- Developed an imitation learning algorithm [C3] using multimodal representations for improving generalization ability in unseen variations.

Apr. 2023 - Aug. 2023

External Collaborator

WITH HONGLAK LEE (UNIVERSITY OF MICHIGAN)

- Developed an imitation learning algorithm [C3] using multimodal representations for improving generalization ability in unseen variations.
- Developed a reinforcement learning algorithm [W1] for improving generalization ability in varying dynamics.
- Developed a preference-based reinforcement learning algorithm [C2] for modeling non-Markovian human preferences.
- Developed a visual reward learning algorithm [C4] for solving complex long-horizon robotic manipulations.

Mar. 2022 - June. 2024

Machine Learning Engineer

KAKAO, RECOMMENDATION TEAM

- Developed ML platform for recommendation system.
- Implemented data pipeline from user feedback to refined user-item interaction matrix data.

Seongnam, S.Korea

Dec. 2020 - Feb. 2022

Publications

C: Conference, W: Workshop, P: Preprint, *: Equal contribution

[C11] Pretrained Vision-Language-Action Models are Surprisingly Resistant to Forgetting in Continual Learning

HUIHAN LIU, **CHANGYEON KIM**, BO LIU, MINGHUAN LIU, YUKE ZHU

- International Conference on Machine Learning (ICML), 2026,
- Designated as **oral paper (168 / 23918 = 0.7%)**

Seoul, South Korea

Jul, 2026.

- [C10] Contrastive Representation Regularization for Vision-Language-Action Models** *Seoul, South Korea*
 TAEYOUNG KIM, JIMIN LEE, MYUNGKYU KOO, DONGYOUNG KIM, KYUNGMIN LEE, **CHANGYEON KIM**, YOUNGGYO SEO, JINWOO SHIN *Jul, 2026.*
 • International Conference on Machine Learning (ICML), 2026.
- [C9] Learning Multi-View Spatial Reasoning from Cross-View Relations** *Denver, CO, USA*
 SUCHAE JEONG, JAEHWI SONG, HAEONE LEE, HANNA KIM, JIAN KIM, DONGJUN LEE, DONG KYU SHIN, **CHANGYEON KIM**, DONGYOON HAHM, WOOGYEOL JIN, JUHEON CHOI, KIMIN LEE *Jun, 2026.*
 • The IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2026.
- [C8] DEAS: DEtached value learning with Action Sequence for Scalable Offline RL** *Rio de Janeiro, Brazil*
CHANGYEON KIM, HAEONE LEE, YOUNGGYO SEO, KIMIN LEE, YUKE ZHU *Apr, 2026.*
 • International Conference on Learning Representations (ICLR), 2026.
- [C7] Verifier-free Test-Time Sampling for Vision Language Action Models** *Rio de Janeiro, Brazil*
 SUHYEOK JANG, DONGYOUNG KIM, **CHANGYEON KIM**, YOUNGSUK KIM, JINWOO SHIN *Apr, 2026.*
 • International Conference on Learning Representations (ICLR), 2026.
- [C6] HAMLET: Switch Your Vision-Language-Action Model into a History-Aware Policy** *Rio de Janeiro, Brazil*
 MYUNGKYU KOO, DAEWON CHOI, TAEYOUNG KIM, KYUNGMIN LEE, **CHANGYEON KIM**, YOUNGGYO SEO, JINWOO SHIN *Apr, 2026.*
 • International Conference on Learning Representations (ICLR), 2026.
- [C5] B-MoCA: Benchmarking Mobile Device Control Agents across Diverse Configurations** *Philadelphia, PA, USA*
 JUYONG LEE, TAYWON MIN, MINYONG AHN, DONGYOON HAHM, HAEONE LEE, **CHANGYEON KIM**, KIMIN LEE *Aug, 2025.*
 • Conference on Lifelong Learning Agents (COLLAs), 2025.
 • ICLR 2024 Workshop on Generative Models for Decision Making (GenAI4DM), **Spotlight**
- [C4] Subtask-Aware Visual Reward Learning from Segmented Demonstrations** *Singapore, Singapore*
CHANGYEON KIM, MINHO HEO, DOOHYUN LEE, JINWOO SHIN, HONGLAK LEE, KIMIN LEE, JOSEPH J LIM *Apr, 2025.*
 • International Conference on Learning Representations (ICLR), 2025.
- [C3] Guide Your Agent with Adaptive Multimodal Rewards** *New Orleans, LA, USA*
CHANGYEON KIM, YOUNGGYO SEO, HAO LIU, LISA LEE, JINWOO SHIN, HONGLAK LEE, KIMIN LEE *Dec, 2023.*
 • Conference on Neural Information Processing Systems (NeurIPS), 2023.
 • **Finalist**, Qualcomm Innovation Fellowship Korea 2024
- [C2] Preference Transformer: Modeling Human Preferences using Transformers for RL** *Kigali, Rwanda*
CHANGYEON KIM*, JONGJIN PARK*, JINWOO SHIN, HONGLAK LEE, PIETER ABBEEL, KIMIN LEE *May, 2023.*
 • International Conference on Learning Representations (ICLR), 2023.
- [W1] Dynamics-Augmented Decision Transformer for Offline Dynamics Generalization** *New Orleans, LA, USA*
CHANGYEON KIM*, JUNSU KIM*, YOUNGGYO SEO, KIMIN LEE, HONGLAK LEE, JINWOO SHIN *Nov, 2022.*
 • NeurIPS 2022 Workshop on Offline Reinforcement Learning (NeurIPSOW)
- [C1] Collecting the Public Perception of AI and Robot Rights** *Online*
 GABRIEL LIMA, **CHANGYEON KIM**, SEUNGHO RYU, CHIHYOUNG JEON, MEEYOUNG CHA *Oct, 2020.*
 • Conference on Computer-Supported Cooperative Work and Social Computing (CSCW), 2020.
- [P1] MOI-Mixer: Improving MLP-Mixer with Multi Order Interactions in Sequential Recommendation**
 HOJOON LEE, DONGYOON HWANG, SUNGHWAN HONG, **CHANGYEON KIM**, SEUNGRYONG KIM, JAEGUL CHOO
 • ArXiv Preprint.

Honors & Awards

2026	Silver Reviewer Award , International Conference on Machine Learning	<i>Seoul, S.Korea</i>
2025	Notable Reviewer , International Conference on Learning Representations	<i>Singapore</i>
2024	Finalist , Qualcomm Innovation Fellowship Korea	<i>Seoul, S.Korea</i>
2023	Travel Award , Conference on Neural Information Processing Systems (NeurIPS)	<i>New Orleans, USA</i>
2023	Scholarship , KAIST-Google Partnership Program	<i>Daejeon, S.Korea</i>
2023	East Asia Student Travel Grant , Google	<i>New Orleans, USA</i>
2023	Travel Award , International Conference on Learning Representations (ICLR)	<i>Kigali, Rwanda</i>
2019	Dean's List (Fall Semester) , Department of Engineering, KAIST	<i>Daejeon, S.Korea</i>
2019	Line Scholarship (Fall Semester) , School of Computing, KAIST	<i>Daejeon, S.Korea</i>
2017 - 19	National Science and Engineering Scholarship , Korea Ministry of Science and ICT	<i>Daejeon, S.Korea</i>

Invited Talks

Guide Your Agent with Adaptive Multimodal Rewards

NeurIPS 2023

IMITATION LEARNING FRAMEWORK WITH VLM REWARDS FOR BETTER GENERALIZATION

- LG AI Research, New Orleans, USA (2023)

Academic Services

Conference Reviewer ICML (2024, 2025, 2026), NeurIPS (2024, 2025), ICLR (2025, 2026), AAAI (2026), RSS (2026), ECCV (2026)

Workshop Reviewer ICML Frontiers4LCD 2023, CoRL MRM-D 2024