# **Kwanyoung Park**

#### **EDUCATION**

Seoul National University B.S. in Computer Science & Engineering B.S. in Mathematical Sciences (Minor) * Leave of absence for military service: July 2021 - Jan 2023	Mar '19 - Present GPA: 3.97 / 4.3
Stanford University Visiting student	Jun '23 - Aug '23 GPA: 4.0 / 4.0
<b>Gyeonggi Science High School</b> High school for gifted students in science and mathematics	Mar '16 - Feb '19

#### RESEARCH INTERESTS

- · Offline reinforcement learning
- Unsupervised reinforcement learning
- Robot learning

# **PUBLICATIONS** (\* denotes equal contribution.)

- 1. **Kwanyoung Park**, Youngwoon Lee *Model-based Offline Reinforcement Learning with Lower Expectile Q-Learning* Preprint, 2024 (submitted to **ICLR 2025**)
- 2. Junik Bae, **Kwanyoung Park**, Youngwoon Lee *TLDR: Unsupervised Goal-Conditioned RL via Temporal Distance-Aware Representations* Conference on Robot Learning **(CoRL)**, **2024**
- 3. **Kwanyoung Park\***, Hyunseok Oh\*, Youngki Lee *VECA: A New Benchmark and Toolkit for General Cognitive Development* AAAI Conference on Artificial Intelligence (**AAAI**), **2022** (**Oral presentation, Acceptance Rate: 384/9,251 = 4.15%**)
- Junseok Park, Kwanyoung Park, Hyunseok Oh, Ganghun Lee, Minsu Lee, Youngki Lee, Byoung-Tak Zhang Toddler-Guidance Learning: Impacts of Critical Period on Multimodal AI Agents ACM International Conference on Multimodal Interaction (ICMI), 2021 (Oral presentation)
- 5. **Kwanyoung Park**, Junseok Park, Hyunseok Oh, Byoung-Tak Zhang, Youngki Lee *Learning Task-agnostic Representation via Toddler-inspired Learning* **NeurIPS 2020 Workshop on BabyMind, 2020**

Yonsei RL Lab Jan '24 - Present

- *Undergraduate Research Intern* (Advisor: Youngwoon Lee)
  - Researching on scaling up model-based reinforcement learning algorithms to robotic tasks.
  - Researched on a model-based offline RL method that enables reliable long simulated rollouts (15 steps) by applying lower-expectile regression to  $\lambda$ -returns, improving long-term decision-making [1].
  - Researched on a goal-conditioned unsupervised RL algorithm that utilizes temporal distances [2].

# SNU Human-Centered Computer Systems Lab

Feb '23 - Dec '23

- Undergraduate Research Intern (Advisor: Youngki Lee)
  - Researched on a NeRF model architecture (with Gaussian Splatting) that can reduce network consumption for on-device applications.

# **Ministry of National Defense**

Jul '21 - Jan '23

- Research Engineer (Military Service)
  - Worked as main developer of an NLP project
  - Trained a BERT-based model for Korean language and fine-tuned it for sentence generation.

## **SNU Human-Centered Computer Systems Lab**

Jun '19 - Jun '21

- Undergraduate Research Intern (Advisor: Youngki Lee)
  - Developed VECA, which is the first benchmark to assess the overall cognitive development of an AI agent, including a toolkit to generate diverse and distinct cognitive tasks [3].
  - Researched the impact of guidance (e.g. offline trajectory, dense rewards) during reinforcement learning and its performance on transfer learning [4].
  - Developed a representation learning algorithm based on the agents interaction using VECA [5].

#### **SCHOLARSHIPS**

#### **Presidential Science Scholarship**

Mar '19 - Present

- Korea Student Aid Foundation (KOSAF)
- Full tuition, living expenses support for undergraduate studies.

#### **Gyeonggi-do Special Scholarship (Science Technology)**

Mar '16 - Feb '19

- Gyeonggi-do
- Full-ride scholarship for 3 years.

## **AWARDS**

2023	Special Award, MAICON 2023 (Military AI Competition)
2022	Special Award, MAICON 2022 (Military AI Competition)
2018	Honorable Mention, IMMC (International Mathematical Modeling Challenge)
2018	<b>Bronze Prize</b> , Samsung Humantech Paper Award (Advisor: Hyunju Ju)  Modeling a Remora-Inspired Sucker Structure for Ship Flood Prevention Pads
2015	1st place, KOI (Korea Olympiad in Informatics)

# **SKILLS**

## **Programming Language**

• C, C++, Python (Pytorch, Tensorflow, Jax), C# (Unity), Java

## **Machine Learning**

• Reinforcement learning, Vision, 3D geometry (NeRF), NLP

## Languages

Korean: NativeEnglish: ProficientTOEFL: 109/120

- GRE: 163/170 (Verbal), 169/170 (Quant), 4.5/6.0 (Writing)

• Japanese: Proficient
- JLPT N1: 168/180

## **SERVICES**

#### Reviewer

• Conferences: ICLR 2025

• Workshops: WCBM@CoRL 2024

# **TEACHING**

## **Teaching Assistant**

• AAI4160 Reinforcement Learning, Spring 2024