

Youngjoon Jeong

Ph.D. Candidate @ Seoul National University
Physical AI / World Models

<https://joon-stack.github.io/af1014@snu.ac.kr>
[LinkedIn](#) | [Google Scholar](#) | [X](#)

RESEARCH INTEREST

Physical AI

- Representation learning for robot policy learning and world models, including latent-action and vision-language-action (VLA) models.
- Video/world models for visual planning, action-conditioned prediction, and efficient embodied decision-making.
- Robustness and generalization across viewpoints, tasks, environments, and robot embodiments.

RESEARCH EXPERIENCE

Ph.D. Researcher @ Seoul National University

Advisor: Taesup Kim

Seoul, South Korea

Sep. 2023–Present

Selected projects:

- **Latent actions for robot policy learning:** VILA (CVPR 2026) and PoLAR (CoRL 2026, Accepted): learn view-invariant and structured action representations from visual observations for downstream visuomotor policies.
- **Efficient visual world-model planning:** Sparse Imagination (ICLR 2026): reduce the computational cost of planning with imagined future visual states.
- **Robust vision-language-action policies:** J-PARC (arXiv 2026): study joint-level physical faults and adaptive action correction under altered robot dynamics.
- **Composable latent actions for visual world models (Ongoing):** develop composable latent actions for controllable novel-view synthesis and video world models.

EDUCATION

Ph.D. Candidate @ Seoul National University

Advisor: Taesup Kim

Seoul, South Korea

Sep. 2023–Present

M.S. @ Seoul National University

Seoul, South Korea

Mar. 2020–Feb. 2022

B.S. @ Seoul National University

Seoul, South Korea

Mar. 2016–Feb. 2020

PUBLICATION

- [1] **Youngjoon Jeong**, Jihwan Yu, Minsoo Jo, Junha Chun & Taesup Kim. *PoLAR: Factorizing Extent and Mode in Latent Actions for Robot Policy Learning*. CoRL 2026. [Project](#) | [Code](#)
- [2] **Youngjoon Jeong***, Junha Chun* & Taesup Kim. *Learning to Act Robustly with View-Invariant Latent Actions*. CVPR 2026. (* Equal contribution.) [Project](#) | [Code](#)
- [3] Junha Chun*, **Youngjoon Jeong*** & Taesup Kim. *Sparse Imagination for Efficient Visual World Model Planning*. ICLR 2026. (* Equal contribution.) [Project](#) | [Code](#)
- [4] **Youngjoon Jeong***, Junha Chun*, Soonwoo Cha & Taesup Kim. *Object-centric world model for language-guided manipulation*. ICLR World Model Workshop, 2025. (* Equal contribution.)
- [5] Minsoo Jo, Taeju Kwon, Junha Chun, **Youngjoon Jeong** & Taesup Kim. *Uncovering Vulnerability of Vision-Language-Action Models under Joint-Level Physical Faults*. arXiv preprint, 2026. [arXiv](#)