Sungjae Park

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Education

Carnegie Mellon University Sep. 2024 – Present
M.S. in Robotics
Advisor: Shubham Tulsiani

Seoul National University Mar. 2017 – Aug. 2023
B.S. in Mechanical Engineering (Double Major in Mathematics)
GPA: 4.23/4.3
Graduated 1st in Mechanical Engineering, 2nd in College of Engineering (among fall graduates)
Leave of absence for military service: Apr. 2019 – Feb. 2021

Publications

1. **Sungjae Park**, Homanga Bharadhwaj, Shubham Tulsiani. *DemoDiffusion: One-Shot Human Imitation using Pre-trained Diffusion Policy*. ICRA, 2026.
2. Yanbo Xu*, Yu Wu*, **Sungjae Park**, Zhizhou Zhou, Shubham Tulsiani. *Temporal Score Rescaling for Temperature Sampling in Diffusion and Flow Models*. Preprint, 2025.
3. **Sungjae Park***, Seungho Lee*, Mingi Choi*, Jiye Lee, Jeonghwan Kim, Jisoo Kim, Hanbyul Joo. *Learning to Transfer Human Hand Skills for Robot Manipulations*. CoRL X-Embodiment Workshop, 2024.
4. DROID Dataset Team, *DROID: A Large-Scale In-the-Wild Robot Manipulation Dataset*. RSS, 2024.
5. Open X-Embodiment Collaboration, *Open X-Embodiment: Robotic Learning Datasets and RT-X Models*. ICRA, 2024.

Research Experience

Physical Perception Lab, Carnegie Mellon University Sep. 2024 – Present
Research Assistant (Advisor: Shubham Tulsiani)

- Developed a manipulation framework for one-shot imitation of human data with pre-trained policy.
- Developed an algorithm for steering sampling distributions in diffusion and flow matching models.

Visual Computing Lab, Seoul National University Feb. 2024 – Aug. 2024
Research Intern (Advisor: Hanbyul Joo)

- Developed a framework for learning dexterous manipulation from human motion capture data.

Scholarships

- **Kwanjeong Overseas Fellowship** (2-year support for M.S. studies, Present)
- Presidential Science Scholarship (Mar. 2021 – Dec. 2022)
- Gangwon-do Future Talent Science Scholarship (Jan. 2018 – Dec. 2022)
- Full academic excellence scholarship (Mar. 2018 – Feb. 2019, Mar. 2021)

Awards

- Outstanding B.S. Thesis Presentation Award, Dec. 2022
- 2nd Place, International Design Contest Robocon, Aug. 2018

Services

Reviewer: NeurIPS, ICLR, CoRL, ICRA, RA-L, CVPR

Teaching Experience

- Teaching Assistant — Introduction to Robotics (Spring 2022)
- Undergraduate Tutor — Linear Algebra I (Spring 2021)
- Undergraduate Tutor — Physics 1,2 (Spring 2018, Fall 2018, Spring 2021, Fall 2021)

Skills

Languages: C++, Python, Java, HTML
Libraries/Frameworks: PyTorch, ROS, ROS2, YOLO, SMACH
Modeling: SolidWorks