

# Soomin Park

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[www.soominpark.xyz](http://www.soominpark.xyz)

## RESEARCH INTEREST

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My research interests lie in generative modeling for human motion, spanning both kinematic and physics-based approaches. I am currently developing humanoid control methods that enable flexible motion adaptation across diverse tasks and whole-body control with dexterous hands for precise object interaction. My research goal is to contribute to advancements and applications in computer animation, robotics, and AR/VR.

## EDUCATION

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- **Korea Advanced Institute of Science and Technology (KAIST)** *Mar. 2021 – Aug. 2027 (expected)*  
PhD Candidate, Graduate School of Culture Technology *Daejeon, South Korea*  
Lifelike Avatar & Agent Lab (Advisor: Sung-Hee Lee)
- **Korea Advanced Institute of Science and Technology (KAIST)** *Mar. 2019 – Feb. 2021*  
MSc, Graduate School of Culture Technology *Daejeon, South Korea*  
Lifelike Avatar & Agent Lab (Advisor: Sung-Hee Lee)
  - Thesis: "Spatio-Temporal Graph-Based Generative Adversarial Networks for Character Motion Style Transfer"
  - Thesis committee: Sung-Hee Lee, Juhan Nam, Jaegul Choo
- **Ewha Womans University** *Mar. 2014 – Feb. 2019*  
BS in Computer Science and Engineering *Seoul, South Korea*

## PUBLICATIONS

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### Refereed Journals/Conferences

- [1] PhaseDance: Capturing Rhythm and Expressivity in Dance Modeling. Meongeun Kim, Taehui Lee, **Soomin Park**, Sung-Hee Lee. *Under review*.
- [2] MaskAdapt: Learning Flexible Motion Adaptation via Mask-Invariant Prior for Physics-Based Characters. **Soomin Park**, Eunseong Lee, Kwang Bin Lee, Sung-Hee Lee. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)* (2026). **Highlight (top 3.6% of submissions)**. [[paper](#)][[project](#)]
- [3] Motion Puzzle: Arbitrary Motion Style Transfer by Body Part. Deok-Kyeong Jang, **Soomin Park**, Sung-Hee Lee. *ACM Transactions on Graphics (Proc. SIGGRAPH)* (2022). [[paper](#)][[project](#)]
- [4] Diverse Motion Stylization for Multiple Style Domains via Spatial-Temporal Graph-Based Generative Model. **Soomin Park**, Deok-Kyeong Jang, Sung-Hee Lee. *Proceedings of the ACM on Computer Graphics and Interactive Techniques (PACMCGIT) (Proc. SCA)* (2021). [[paper](#)][[project](#)]

### Extended Abstracts, Posters, and Demos (\* equal contribution)

- [1] Spatial Chef: A Spatial Transforming VR Game with Full Body Interaction. Yeeun Shin\*, Yewon Lee\*, Sungbaek Kim\*, **Soomin Park**\*. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA)* (2023). [[paper](#)]
- [2] CanvoX: High-resolution VR Painting in Large Volumetric Canvas. Yeojin Kim, **Soomin Park**, Young Jun Kim. *KSC SW Implementation/Demo Contest* (2017). [[paper](#)]

## EXPERIENCE

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- **Roblox Corporation** Aug. 2026 – Dec. 2026  
Incoming Research Intern (Host: Mubbasir Kapadia) San Mateo, CA, USA
- **MOVIN** Aug. 2024 – Feb. 2025  
Research Collaborator Daejeon, South Korea
  - Implemented a pipeline to register motion capture data with LiDAR-based human point clouds
  - Mitigated drifting issues in IMU-based motion capture data
- **Graphics Lab, Ewha Womans University** Jul. 2017 – Jun. 2018  
Undergraduate Research Intern (Advisor: Young Jun Kim) Seoul, South Korea
  - Reduced rendering overhead for a high-resolution VR painting system
  - Demonstrated the system at KSC 2017 SW Implementation/Demo Contest

## PROJECTS

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- **Development of Object Media Technology Based on Multiple Video Sources** 2021 – 2025  
Institute for Information & Communications Technology Planning & Evaluation (IITP) Daejeon, South Korea
  - Led research on human motion generation and retargeting
  - Developed physics-based humanoid control frameworks for realistic motion synthesis
- **Construction of Testbed and High-Fidelity Dataset for Pedestrian Perception Evaluation** 2025  
KATECH Daejeon, South Korea
  - Led development on a registration pipeline aligning LiDAR, GPS, and motion capture data
  - Constructed a dataset for evaluating pedestrian perception in autonomous driving
- **Study of Styled Motion Generation for Non-Verbal Communication of Virtual Human Agents** 2020 – 2022  
National Research Foundation of Korea (NRF) Daejeon, South Korea
  - Developed a style-controllable motion generation framework for humanoid agents
  - Developed evaluation metrics (FMD, SRA, CRA) for generative motion models

## OPEN-SOURCE PROJECTS

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- **Diverse-Motion-Stylization:** Motion style transfer framework [[GitHub](#)]
- **Evaluation-for-Motion-Puzzle:** Evaluation protocol for stylized motion generation [[GitHub](#)]

## HONORS AND AWARDS

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- **Highlight Paper** 2026  
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)
- **Student Game Competition Finalist** 2023  
ACM CHI Conference on Human Factors in Computing Systems
- **Dean's Award for Academic Excellence (×4)** 2014 – 2018  
Ewha Womans University
- **Engineering Capstone Design Contest Participation Award** 2018  
Ewha Womans University
- **Engineering Portfolio Contest Participation Award** 2018  
Ewha Womans University
- **KSC 2017 SW Implementation/Demo Contest Excellence (3rd place)** 2017  
Korea Software Congress

## ACADEMIC SERVICES

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- **Reviewer**

NeurIPS 2026, CVPR 2026, ECCV 2026, SIGGRAPH 2025, TVCG 2025, Pacific Graphics 2021

## TECHNICAL SKILLS

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- **Languages:** English (fluent), Korean (native)
- **Programming Languages:** Python, C/C++, C#, MATLAB
- **Frameworks & Libraries:** PyTorch, TensorFlow, NumPy, SciPy
- **Platforms & Tools:** Isaac Gym, Isaac Lab, MuJoCo, Bullet, Unity3D, Blender, Git, ROS
- **Core Skills:** Reinforcement Learning, Generative Models, Human Body/Motion Modeling, Data Analysis