

Jiyoung Park

Ph.D. Candidate | HCI & Haptics

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Intelligent Multimodal Interfaces · Haptic Interaction · Multimodal Accessibility · Human-Centered AI

Education

Hanyang University, Ansan, South Korea

Sep 2023 – Present

Integrated M.S.–Ph.D. Program in Applied Artificial Intelligence

GPA: 4.36/4.5

Advisor: Prof. Yongjae Yoo

Namseoul University, Cheonan, South Korea

Mar 2020 - Aug 2023

B.S. in Intelligent Information and Communications Engineering

GPA: 4.24/4.5

Research Projects

Visual-to-Tactile Translation for STEM

Jan 2025 – Present

Developing AI-powered multimodal accessibility systems that enable blind and low-vision users to explore and interact with charts and block-based programming through tactile graphics, braille, and audio feedback.

Spatial Access in Presentations

Mar 2025 – Present

Developed DotVista in collaboration with Microsoft and Dot Inc., leveraging on-device AI to transform presentation slides into interactive tactile representations that preserve spatial layouts.

Personalized Multisensory 4D Experiences

Jan 2025 – Apr 2025

Developed AI-based audiovisual content analysis and personalized multisensory effect generation methods for immersive 4D media experiences.

Sensorimotor Skill Transfer

Aug 2023 – Dec 2024

Investigating AI-driven adaptive haptic feedback and VR-based interaction techniques to enhance dexterous sensorimotor skill learning, performance, and retention.

Publications

Journal Articles

- [J.1] **Towards An Optimal Strategy for Haptic Dexterous Skill Learning: Development of AI-Driven Adaptive Assistance.** Jiyoung Park, Jaewan Lim, and Yongjae Yoo. *ACM Transactions on Interactive Intelligent Systems (TiiS)*, 2026. **Accepted.**

International Conferences

- [C.4] **TaME4D: Tailoring Multisensory Effects for Improving 4D Movie Watching Experiences.** Minh Chung, Seoyong Nam, Jiyoung Park, and Yongjae Yoo. *ACM International Conference on Multimedia (ACM MM)*, 2026. **Accepted.**
- [C.3] **Amplifying Force-feedback Cues for Enhancing Dexterous Skill Transfer.** Eunhae Kim, Jaewan Lim, Jiyoung Park, and Yongjae Yoo. *IEEE International Conference on Robotics and Automation (ICRA)*, 2026. DOI.
- [C.2] **Do Vibrotactile-Rendered Virtual Walking Sensations Reduce VR Cybersickness?** Jaewan Lim, Sooyeon Choi, Jimin Ryu, Taeyoon Lee, Jiyoung Park, and Yongjae Yoo. *IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*, 2025. DOI.
- [C.1] **To Guide Or To Disturb – How To Teach Dexterous Skills Using AI?** Jiyoung Park, Dohoon Kwak, Jaewan Lim, Taeyoon Lee, Seunggyeom Kim, and Yongjae Yoo. *ACM International Conference on Intelligent User Interfaces (IUI)*, 2025. DOI.

Posters

- [P.2] **Towards Effective Sensorimotor Skill Transfer in VR Engraving Arts.** Jiyoung Park, Jaewan Lim, Taeyoon Lee, and Yongjae Yoo. *ACM Symposium on Virtual Reality Software and Technology (VRST)*, 2024. DOI.
- [P.1] **A Comparison between Vibrotactile Error-Correction Feedback on Upper and Lower Body in the VR Snowboard Balancing Task.** Jaewan Lim, Jiyoung Park, Dohoon Kwak, and Yongjae Yoo. *ACM Symposium on Virtual Reality Software and Technology (VRST)*, 2024. DOI.

Domestic Conferences

- [D.8] **An On-Device AI-Based Visual-to-Tactile Translation System for Accessible Presentation Slides.** 🏆 **Best Demo Award.** Jiyoung Park, Sewon Na, Geon Wang, Wonjeong Kim, and Yongjae Yoo. *Korea Haptics Conference*, 2026. Demo.
- [D.7] **Development and Initial Evaluation on Accessible Block-based Programming Support System Based on Tactile Display.** Geon Wang, Jiyoung Park, Eunchoe Kim, and Yongjae Yoo. *Korea Computer Congress (KCC)*, 2026.
- [D.6] **AI-Based Real-Time Audio-Tactile Chart Accessibility System for The Visually Impaired.** Eunchoe Kim, Jiyoung Park, Seunggyeom Kim, Seoyong Nam, and Yongjae Yoo. *HCI Korea*, 2026.
- [D.5] **Audiovisual Feature Extraction for Multimodal Haptic Rendering in 4D Films Based on User Preferences.** Seoyong Nam, Jiyoung Park, Minho Chung, and Yongjae Yoo. *Korea Computer Congress (KCC)*, 2025. Extended Abstract.
- [D.4] **Design of a Four-Directional Wind Feedback System Using Video-Based Object Tracking.** Minho Chung, Seoyong Nam, Jiyoung Park, and Yongjae Yoo. *Korea Computer Congress (KCC)*, 2025. Extended Abstract.
- [D.3] **Segmentation and Learning of Carving Knife's Force-Position Data in Engraving Arts for Guidance Force-feedback Rendering.** 🏆 **Best Paper Award.** Jiyoung Park, Jaewan Lim, Taeyoon Lee, and Yongjae Yoo. *Korea Computer Congress (KCC)*, 2024.
- [D.2] **VR Balance Enhancement System Using Real-time CoP-based Haptic Feedback.** Jaewan Lim, Jiyoung Park, Dohoon Kwak, and Yongjae Yoo. *Korea Computer Congress (KCC)*, 2024. Extended Abstract.
- [D.1] **A Preliminary Study for Data Capturing and VR System to Model and Transfer Dexterous Skills for Sculpture Arts.** Jaewan Lim, Jiyoung Park, and Yongjae Yoo. *Korea Haptics Conference*, 2023. Demo.

Fellowships & Scholarships

Ph.D. Excellence Scholarship in Science and Engineering Korea Student Aid Foundation (KOSAF)	2026
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Patent

Device, System and Method for Generating Customized 4D Effect Using Feedback Documentation and Multi-Modal Analysis. Yongjae Yoo, Seoyong Nam, Minho Chung, and Jiyoung Park. Korean Patent Application, 2025.

Awards

Best Demo Award (1st Prize) , Korea Haptics Conference Korean Haptics Society	2026
Best Paper Award , Korea Computer Congress Korean Institute of Information Scientists and Engineers (KIISE)	2024
Encouragement Award , IC-PBL+ Graduate Championship Hanyang University	2024
Grand Prize, Future Mobility Track , Student Idea Competition Korean Haptics Society & Hyundai Motor Company	2023

Teaching Experience

Teaching Assistant, Software Convergence Capstone Hanyang University	Mar 2024 – Jun 2026
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Academic Services

Reviewer

- AsiaHaptics 2026

Student Volunteer

- IEEE World Haptics Conference (WHC) 2025