Haejun Kim

vedonefor@kaist.ac.kr | Website | Google Scholar

Education

KAIST Mar. 2024 – Feb. 2026
M.S. in Data Science
Korea Advanced Institute of Science and Technology | Advisor: Shuping Xiong

Hanyang University Mar. 2018 – Feb. 2024
B.A. in Philosophy; Second Major in Industrial Engineering
Cum laude

Research Experience

Kangwon National University Mar. 2026 – Present
Research Assistant / South Korea
Researching silent speech input from facial and head-motion signals and memory architectures for LLM-driven VR agents.

Empathic Computing Lab, Adelaide University Mar. 2026 – Jul. 2026
Virtual Intern
Participated in research supervised by Mark Billinghurst.

KAIST Mar. 2024 – Feb. 2026
Master's Researcher / South Korea
Conducted research on interaction and human factors in virtual and mixed reality under the supervision of Shuping Xiong.

KAIST Human Factors & Ergonomics Lab Jul. 2023 – Sep. 2023
Undergraduate Researcher / South Korea
Analyzed gait in VR across avatar fidelity levels.

Publications

[†]Co-first authors; [*]Corresponding authors.

Manuscripts Under Review (Details on my website)

[u.1] **Beyond Constant Transparency: Evaluating a Pedestrian-Aware Transparency-Adaptive Interface for XR Walking**
Haejun Kim, Qiuli Jin, Shuping Xiong[*], Woojoo Kim[*].
International Journal of Human-Computer Interaction, revised manuscript under review. Preprint: SSRN 6161580

[u.2] **Speaking Without Sound: From Face and Head Motion to Silent Speech Command Input on Face-Tracked Headsets**
Haejun Kim, YeongUk Jeong, Youngcheol Hwang, Mark Billinghurst, Hyunok Lee, Dayoung Lee, Woojoo Kim.
ACM CHI 2027, under review.

[u.3] **Designing and Reporting Multi-Directional Tapping Tasks: A Systematic Review, Practical Guidelines, and a Configurable Testbed**
Yuhwa Hong, **Haejun Kim**, Shuping Xiong, Woojoo Kim.
ACM CHI 2027, under review.

2026

[c.3] **Remembering Is Not the Same as Feeling Personal: Evaluating Memory Architectures for LLM-Driven VR Embodied Conversational Agents**
Youngcheol Hwang[†], **Haejun Kim**[†], Jiyeong Park, Hyunok Lee, Dayoung Lee[*], Woojoo Kim[*].
ACM VRST 2026, accepted.

Publications (continued)

[c.2] **Decode the Avatar Face: Affect Recovery in Dyadic VR**
Haejun Kim, Theophilus Teo*, Alessandro Visconti, Allison Jing, Chenkai Zhang, Heesook Shin, Yongho Lee, Youn-Hee Gil, Fabrizio Lamberti, Woojoo Kim, Mark Billinghurst, Gun A. Lee.
ACM VRST 2026, accepted.

[j.1] **The Effects of Task Factors on the Multi-Directional Tapping Task**
Yuhwa Hong†, **Haejun Kim**†, Jihae Yu, Heedo Shin, Xiaoqun Yu, Shuping Xiong*, Woojoo Kim*.
International Journal of Human-Computer Interaction, 42(12), 8917–8940, 2026.

[j.2] **Effects of Passive Shoulder Support Exoskeleton and Keyboard Interaction Design on Mid-Air Typing in Mixed Reality**
Haejun Kim, Qiuli Jin, Seonghyeok Park, Woojoo Kim*, Shuping Xiong*.
International Journal of Human-Computer Interaction, 42(14), 10926–10948, 2026.

2025

[c.1] **Toward a More Standardized Multi-directional Tapping Task in VR: The Effect of Target Depth**
Haejun Kim, Yuhwa Hong, Jihae Yu, Shuping Xiong*, Woojoo Kim*.
IEEE ISMAR 2025.

[p.1] **HickStudyVR: A Hick's Law-Based Information Processing Speed Test in VR for Large Choice Sets**
Junha Choe, Hyeeun Cho, **Haejun Kim**, Woojoo Kim*.
IEEE ISMAR 2025 (Poster).

[p.2] **The Effect of Target Depth on Performance of Multi-directional Tapping Task in Virtual Reality**
Haejun Kim, Yuhwa Hong, Jihae Yu, Shuping Xiong*, Woojoo Kim*.
ACM CHI EA 2025 (Poster).

[p.3] **ChaMEleon: Identity-Adjustable Remote Collaboration System in Virtual Reality**
Hyunyoung Han, **Haejun Kim**, Junseo Lee, Woontack Woo*.
HCI Korea 2025 (Poster).

Awards & Honors

Future Research Award Sep. 2025
Korean Data Science Society
Outstanding research at the Korean Data Science Conference.

Q-Day Special Student Award Nov. 2024
KAIST
Excellence in creative education and research through active participation in "QAIST."

Hanyang Brain (Academic Excellence) Scholarship
Hanyang University
Academic excellence: Fall 2018, Spring 2019, Spring 2020, Fall 2020, Fall 2023.

Skills

Software: Python, R, Unity, XR development, Minitab.

Instrumentation & Sensors: OptiTrack motion capture, Xsens inertial motion capture, Delsys surface EMG, Tobii eye-tracking, exoskeleton.

Languages: English (fluent, IELTS 7.5); Korean (native).

Additional Experience

Long-Term Care Facility Apr. 2021 – Jan. 2023
Alternative Military Service | South Korea
Fulfilled compulsory national service by supporting elderly residents in daily living.

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