

Soohwan Lee

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Human-centered AI | Human-AI Collaboration | Conversational AI | Group Dynamics

EDUCATION

- **Ulsan National Institute of Science and Technology(UNIST)** Present
Ph.D in Design with Concentration in HCI Ulsan, South Korea
 - Advisor: Kyungho Lee
- **Ulsan National Institute of Science and Technology(UNIST)** 2022
M.S in Creative Design Engineering with Concentration in HCI Ulsan, South Korea
 - Committee: Kyungho Lee, Ian Oakley, Young-woo Park
- **Ulsan National Institute of Science and Technology(UNIST)** 2020
B.S in Human Factors Engineering & Computer Science and Engineering Ulsan, South Korea

EXPERIENCE

- **Ulsan National Institute of Science and Technology (UNIST)** Ulsan, South Korea
 - **Research Assistant** 03/2020 – Present
Expressive Computing Lab, UNIST (Advisor: Kyungho Lee)
 - **Research Intern** 12/2018 – 12/2019
Interactions Lab, UNIST (Advisor: Ian Oakley)

PUBLICATIONS

C=CONFERENCE, J=JOURNAL, S=SHORT PAPER AND POSTER, T=THESIS, U=UNDER REVIEW

[Peer-reviewed Conference Proceedings]

- [C.1] **Soohwan Lee**, Seoyeong Hwang, Ian Oakley, and Kyungho Lee. (2024). **Expanding the Design Space of Vision-based Interactive Systems for Group Dance Practice**. In Proceedings of the 2024 ACM Designing Interactive Systems Conference (DIS '24)
- [C.2] DoYoung Lee, **Soohwan Lee**, and Ian Oakley. (2020). **Nailz: Sensing Hand Input with Touch Sensitive Nails**. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20)

[Journal Publications]

- [J.1] Jang, Sangsu, **Soohwan Lee**, Temirlan Dzhoroev, Taeyoon Kim, Hyejin Oh, Nari Kim, and Young-Woo Park (2021). **Design Guidelines for Contextual Awareness and Management of Hygiene in Daily Life with Infectious Viruses**. Archives of Design Research

[Short Papers, Posters, and Workshop Papers]

- [S.1] **Soohwan Lee**, Seoyeong Hwang, Dajung Kim and Kyungho Lee. (2025). **Conversational Agents as Catalysts for Critical Thinking: Challenging Social Influence in Group Decision-making**. In Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '25)
- [S.2] **Soohwan Lee**, and Kyungho Lee. (2025). **Amplifying Minority Voices: AI-Mediated Devil's Advocate System for Inclusive Group Decision-Making**. In Companion Proceedings of the 30th International Conference on Intelligent User Interfaces (IUI '25 Companion)
- [S.3] **Soohwan Lee**, Seoyeong Hwang, and Kyungho Lee. (2024). **Conversational Agents as Catalysts for Critical Thinking: Challenging Design Fixation in Group Design**. (DIS '24 Workshop)
- [S.4] **Soohwan Lee**, and Kyungho Lee. (2023). **CheerUp: A Real-time Ambient Visualization of Cheerleading Pose Similarity**. In Companion Proceedings of the 28th International Conference on Intelligent User Interfaces (IUI '23 Companion)

[Thesis]

- [T.1] **Soohwan Lee**. (2022). **NEAS: AI-based Interactive System to Support Non-verbal Expressions in Online Communication**. Master Thesis, UNIST.

[Under Review (TBA)]

- [U.1] **Soohwan Lee**, Seoyeong Hwang, Mingyu Kim, Dajung Kim, and Kyungho Lee. TBA. **Voice for the Voiceless: An LLM-powered Devil's Advocate for AI-mediated Communication in Power-imbalanced Groups.** (Conference Paper)
- [U.2] **Soohwan Lee**, Seoyeong Hwang, and Kyungho Lee. TBA. **Beyond Individual UX: Defining Group Experience(GX) as a New Paradigm for Group-centered AI.** (Poster)
- [U.3] Seoyeong Hwang, **Soohwan Lee**, Dajung Kim, and Kyungho Lee. TBA. **Augmentary: An Exploratory Study on Facilitating Self-reflection through AI-Augmented Journaling.** (Poster)
- [U.4] **Soohwan Lee**, and Kyungho Lee. TBA. **Gesture2Emoji: A Design Exploration of Gesture Recognition for Non-Verbal Communication in Online Meetings.** (Conference Paper)

PROJECTS

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|---|-------------------|
| • Commercialization design and development of Intelligent Product-Service System for personalized full silver life cycle care
<i>This work was supported by the Technology Innovation Program (20015056, Commercialization design and development of Intelligent Product-Service System for personalized full silver life cycle care) funded By the Ministry of Trade, Industry & Energy(MOTIE, Korea).</i> | 01/2022 - Present |
| • Develop sensor modules and mountings for monitoring upper body angles and angular velocities
<i>This work was supported by LG Electronics.</i> | 01/2024 - 09/2024 |
| • Building a end-to-end speech recognition model for active seniors using KoSpeech model
<i>This research was supported by X-Corps Plus program of National Research Foundation of Korea(NRF) funded by the Ministry of Science, ICT (No. 2021H1D8A306520712).</i> | 03/2023 - 12/2023 |
| • Smart Clean BioAir Home Management System
<i>This work was supported by the Technology Innovation Program (20009977, Smart Clean BioAir Home Management System) funded By the Ministry of Trade, Industry & Energy(MOTIE, Korea).</i> | 04/2020 - 12/2021 |
| • UNIVERSE: Design of a Social Robot that Supports Emotional Well-Being of the MZ Gen
<i>This work was supported by Innovative Education Center, UNIST. (This project is part of AI Challenger Program at UNIST.)</i> | 09/2021 - 12/2021 |
| • Conceptualize and design a new UX/UI for a washer/dryer targeting Gen MZ.
<i>This work was supported by LG Electronics.</i> | 03/2021 - 09/2021 |

TEACHING

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| • Teaching Assistant
<i>UNI207::Creative Computing for Emerging Media ART, UNIST</i> | 07/2022 - 08/2022 |
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HONORS AND AWARDS

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| • CES Innovation Awards
<i>2025 Honoree in Smart Home</i> | 2025
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INVITED TALKS

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| • Group Dynamics & Social Change Lab, Lehigh University
<i>Invited By Jiin Jung</i> | 04/2025 |
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ACADEMIC SERVICES

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| • ACM DIS PWiP Associate Chair | 2025 |
| • ACM DIS Reviewer | 2025 |
| • ACM CSCW Reviewer | 2024 |
| • ACM CHI LBW Reviewer | 2025 |