



Hyungwoo Song

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🔗 **Research Interests:** Human-Computer Interaction, Human-Centered AI, Accessibility, Education

Education

Seoul National University <i>Bachelor of Science in Electrical and Computer Engineering</i>	Graduation: Fall 2022 Seoul, Korea
Seoul National University <i>Master of Science in Intelligence and Information</i>	Graduation: Fall 2024 Seoul, Korea
Seoul National University <i>Ph.D. in Intelligence and Information</i>	Expected Graduation: Fall 2027 Seoul, Korea

Publications

* Authors marked with an asterisk contributed equally to the respective works.

Refereed Conference Papers

1. **Song, H.***, Kim, K.* , Jeon, H., Shin, M., & Suh, B. (2026). Who Is Shopping With You? How Persona Design Shapes Cognitive and Social Engagement in AI Shopping Agents. *Proceedings of the 49th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '26)*. <https://doi.org/10.1145/3805712.3809984>
2. **Song, H.**, Park, K., & Suh, B. (2026). From Exploration to Creation: How Teachers Orchestrate AI-Supported Learning in History Classrooms. *Proceedings of the 27th International Conference on Artificial Intelligence in Education (AIED 2026), Lecture Notes in Computer Science*.
3. **Song, H.**, Kim, J., Kim, M., Kwak, D., Shin, M., Suh, B., & Jung, H. (2026). "I Should Know, But I Dare Not Ask": From Understanding Challenges in Healthcare Journeys to Deriving Design Implications for North Korean Defectors' Adaptation. *Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI '26)*. <https://doi.org/10.1145/3772318.3790752>
4. Lee, D.* , Ju, J.* , **Song, H.**, & Park, H. (2026). From Ballpark to Society: Understanding Stakeholders' Adaptation to Automated Judgment via ABS in Baseball. *Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI '26)*. <https://doi.org/10.1145/3772318.3791249>
5. **Song, H.***, Kim, K.* , Ryu, J., Oh, C., & Suh, B. (2025). BleacherBot: AI Agent as a Sports Co-Viewing Partner. *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI '25)*. <https://doi.org/10.1145/3706598.3714178>
6. Ryu, J., Kim, K., Heo, D., **Song, H.**, Oh, C., & Suh, B. (2025). Cinema Multiverse Lounge: Enhancing Film Appreciation via Multi-Agent Conversations. *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI '25)*. <https://doi.org/10.1145/3706598.3713641>
7. Kim, K., Ryu, J., Heo, D., **Song, H.**, Oh, C., & Suh, B. (2025). Conversational Argument Search Under Selective Exposure: Strategies for Balanced Perspective Access. *Proceedings of the 48th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '25)*. <https://doi.org/10.1145/3726302.3730175>
8. **Song, H.***, Shin, M.* , Chu, H.* , Hong, J.* , Lee, J., Eun, J., & Lim, H. (2024). EmoBridge: Bridging the Communication Gap between Students with Disabilities and Peer Note-Takers Utilizing Emojis and Real-Time Sharing. *Proceedings of the 26th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '24)*. <https://doi.org/10.1145/3663548.3675629>

9. **Song, H.***, Kim, K.* , & Suh, B. (2024). Self-Referential Review: Exploring the Impact of Self-Reference Effect in Review. *Proceedings of the 47th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '24)*. <https://doi.org/10.1145/3626772.3657969>

Extended Abstracts, Posters, and Demonstrations

1. **Song, H.***, Ryu, J.* , Kim, J., Park, K., & Suh, B. (2026). From Objects to Influences: Rethinking Deletion in Learning-Based Systems. *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '26)*. doi
2. Bae, S., **Song, H.**, Jeon, H., Kim, T., & Suh, B. (2026). Supporting or Hindering? Understanding the Divergent Effects of LLM Assistance on Critical Thinking in Academic Reading. *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '26)*. doi
3. Kim, J.* , Park, K.* , Ryu, J., **Song, H.**, & Suh, B. (2026). When Nurses Meet Vibe-Coding: Shifting from Problem Talk to Situated Specification in Participatory Design. *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '26)*. doi
4. Kim, M., **Song, H.**, Lee, J., & Suh, B. (2026). "Just Listening Was Enough—Until It Wasn't": Relationship-Stage-Aware Cognitive Scaffolding in AI Companions. *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '26)*. doi
5. Lee, J., Choi, J., **Song, H.**, Shin, M., & Suh, B. (2026). "What Can I Control?": Designing an Attribution Reframing Chatbot for Early-Career Employees' Workplace Stress Management. *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '26)*. doi
6. Kim, E., Chowdhury, S. S., **Song, H.**, & Suh, B. (2026). In-situ Adaptive Interfaces for Online Browsing. *Companion Proceedings of the 31st International Conference on Intelligent User Interfaces (IUI '26 Companion)*. doi
7. Kim, Y., Jang, K., **Song, H.**, Shin, M., & Suh, B. (2026). CodeVoyager: Integrating Interactive Visual Aids with LLMs for Code Comprehension. *Companion Proceedings of the 31st International Conference on Intelligent User Interfaces (IUI '26 Companion)*. doi
8. **Song, H.**, Choi, J., Shin, M., Suh, B., & Jung, H. (2025). AltCAT: An Alt Text Authoring Tool with Automatic Generation and Culturally-Aware Translation. *Proceedings of the 27th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '25)*. <https://doi.org/10.1145/3663547.3759732>
9. Ra, Y., Lee, Y., **Song, H.**, Jung, H. (2025). From Fragmented to Integrated: Mobile GUI Design Supporting Novice Nurses' Handover Workflow. *Adjunct Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology (UIST Adjunct '25)*. <https://doi.org/10.1145/3746058.3758379>
10. Kim, Y., Jang, K., **Song, H.**, Shin, M., & Suh, B. (2025). CodeVoyager: An Interactive Tool for Rapid Code Comprehension through LLM-Assisted Graph Navigation. *Adjunct Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology (UIST Adjunct '25)*. <https://doi.org/10.1145/3746058.3758378>
11. **Song, H.***, Park, K.* , Seo, S., Kim, J., & Suh, B. (2025). Ask Sir Oliver Ingham: LLM-based Social Simulations for History Education. *Proceedings of the Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '25)*. <https://doi.org/10.1145/3706599.3719728>
12. Shin, M., Choi, J., **Song, H.**, Kim, J., & Suh, B. (2025). "I feel you, but...": Exploring the Boundaries of Pragmatic Markers in Real-time Voice-based Conversational Agents. *Proceedings of the Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '25)*. <https://doi.org/10.1145/3706599.3719797>
13. **Song, H.**, Shin, M., Kim, Y., Jang, K., Choi, J., Jung, H., & Suh, B. (2025). AltAuthor: A Context-Aware Alt Text Authoring Tool with Image Classification and LMM-Powered Accessibility Compliance. *Companion Proceedings of the 30st International Conference on Intelligent User Interfaces (IUI '25 Companion)*. <https://doi.org/10.1145/3708557.3716366>

14. **Song, H.**, Kim, K., Kim, K., Ryu, J., & Suh, B. (2024). Exploring the Impact of User-Participated Customization in Experiencing Chatbot Failure. *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '24)*. <https://doi.org/10.1145/3613905.3651102>

Domestic Conference Papers

1. Shin, M., Choi, J., Kim, J., **Song, H.**, & Suh, B. (2025). Design Guidelines for Enhancing Korean Voice Assistants with Discourse Markers Using LLMs. *HCI Korea '25*.
2. **Song, H.**, Seo, S., Kim, J., Kim, Y., Shin, M., Jang, K., Choi, J., Jung, H., & Suh, B. (2025). Exploring the Use of Assistive Technology for Students with Disabilities in the Last Five Years. *HCI Korea '25*.
3. Heo, D., Kim, K., **Song, H.**, & Suh, B. (2024). Proposal Of Korean CSAT Customized Question Generator System With Prompt Engineering. *HCI Korea '24*.
4. **Song, H.***, Shin, M.*, Chu, H.*, Hong, J.*, Lee, J., Eun, J., & Lim, H. (2024). EmoBridge: Design of a Collaborative Note-taking System. *HCI Korea '24*.
5. Lee, S., Kim, J., **Song, H.**, & Suh, B. (2024). Designing a News Interface Using Semantic Sentence Analysis. *HCI Korea '24*.
6. Park, G., Kim, J., **Song, H.**, & Suh, B. (2023). Detection of Heart Murmur by Deep Learning and Phonocardiogram. *HCI Korea '23*.

Awards and Honors

Best Demo Award (People's Choice), UIST 2025	10/2025
BK21 Future Innovation Talent Award (Bronze Prize), Seoul National University	01/2025
Outstanding Poster Paper Award, HCI Korea 2024	01/2024

Teaching Experience

Woori Financial Group & SNU (Advanced LLM & RAG) <i>Teaching Assistant</i>	12/2025 – 01/2026 <i>Seoul, Korea</i>
<ul style="list-style-type: none"> Led hands-on practical sessions on AI product development, instructing students on real-world usage of Gemini and Dify for building LLM-based applications 	
SNU (Advanced Interdisciplinary Studies & Future Pathways II: Applied Data Science) <i>Teaching Assistant</i>	09/2025 – 12/2025 <i>Seoul, Korea</i>
<ul style="list-style-type: none"> Conducted hands-on practical sessions introducing students to a range of AI products and tools, supporting applied learning with Python-based exercises 	
Samsung Electronics (Data Science Program) <i>Teaching Assistant</i>	02/2025 – 05/2025 <i>Seoul, Korea</i>
<ul style="list-style-type: none"> Conducted hands-on practical sessions introducing multi-agent AI systems, including CrewAI, and guiding participants in building AI-driven applications with Python 	
LG & SNU (LG AI youth camp) <i>Coordinator</i>	02/2025 – 05/2025 <i>Hybrid</i>
<ul style="list-style-type: none"> Provided technical instruction to mentors on AI concepts and practical usage, supporting their ability to design and build AI-powered products using Python 	
Seoul National University (Digital Forensics Practices and Lectures on Special Topics) <i>Teaching Assistant</i>	01/2025 – 02/2025 <i>Seoul, Korea</i>
<ul style="list-style-type: none"> Guided students through the end-to-end design of small AI projects in hands-on practical sessions, covering Advanced LLM pipelines and Retrieval-Augmented Generation (RAG) 	
Woori Financial Group & SNU (Advanced LLM & RAG) <i>Teaching Assistant</i>	07/2025 – 08/2025 <i>Seoul, Korea</i>

- Led hands-on practical sessions on AI product development using LangGraph, LangChain, and Dify, guiding students through the design and implementation of LLM-based applications

LG & SNU (LG AI youth camp)

02/2024 – 05/2024

Technical Mentor

Hybrid

- Mentored students in designing and building functional AI-powered products using Python, guiding them through problem formulation, model integration, and prototype development

Seoul National University (Digital Forensics Practices and Lectures on Special Topics)

01/2024 – 02/2024

Teaching Assistant

Seoul, Korea

- Supported practical sessions by assisting with student questions and providing feedback on project ideas, particularly in topics related to Advanced LLM pipelines and Retrieval-Augmented Generation (RAG)

Projects Experience

Collaborative Intelligence Framework for Human–Multi-LLM Interaction (HCI, Multi-Agent, LLMs) 09/2025 – 12/2025

- Contributed to research discussions and experimental exploration of interaction frameworks for collaborative intelligence between humans and multiple large language models

K-CLPS: Scientific Utilization of LVRad (ML, Scientific Computing, Data Processing) 03/2025 – 12/2025

03/2025 – 12/2025

- Participated in research activities involving data analysis and machine learning workflows supporting the scientific application of LVRad

Kiwoom Securities Global Trading POC Development (Finance, AI Modeling, Prototyping) 07/2025 – 11/2025

07/2025 – 11/2025

- Engaged in proof-of-concept research discussions and assisted with exploratory analysis for AI-driven global trading systems

FoodTech Workforce Training & Technology Development Program (AI, Data, Systems) 03/2025 – 08/2025

03/2025 – 08/2025

- Participated in a national FoodTech R&D program, supporting data analysis and system exploration for intelligent food technology solutions

k62902 & k62903 Intelligent Systems Development (AI Systems, Data Engineering) 08/2023 – 12/2024

08/2023 – 12/2024

- Contributed to the development process of data-driven systems by assisting with experiments, documentation, and system evaluation

Intelligent Big Data Processing Technologies (Big Data, ML, Pipelines) 03/2023 – 12/2023

03/2023 – 12/2023

- Participated in research on big data processing technologies, supporting analytics tasks and experimental validation

Social Value Creation via Public Data Analysis (Korea Customs Service) (Public Data, Analytics) 02/2022 – 03/2022

02/2022 – 03/2022

- Supported data analysis activities on overseas consumer transaction datasets in collaboration with the Korea Customs Service

Invited Talks

Seoul National University | Undergraduate HCI Course

10/2023

- Invited speaker for an undergraduate HCI class, presenting the Human-Centered Design (HCD) process and the research behind the *EmoBridge* paper

Proficiency in Skills

Languages: English (Full Professional Proficiency), Korean (Native)

Programming Languages: Python, C++, R, React, LaTeX, CSS, HTML

Certification: TEPS Level 1 (Test of English Proficiency developed by Seoul National University)

Communication: Strong written and verbal communication skills, experienced in academic presentations, interdisciplinary collaboration, and technical mentoring