

# JooYeong Kim

PhD candidate

School of Integrated Technology

GIST, Republic of Korea

jooyeongkim.com

jspirit01@gm.gist.ac.kr

[Research Projects](#) 🔍

[Scholar](#) 🎓 [GitHub](#) 🐙

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## RESEARCH INTERESTS

My research focuses on human-centered AI interaction systems that enhance usability and accessibility. I identify the problems people encounter and design and develop systems to support them effectively. I enjoy leveraging recent AI technology in my systems and exploring how AI can practically support human problems. I evaluate user experiences both quantitatively and qualitatively, and seek ways to improve the systems.

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## EDUCATION

### Gwangju Institute of Science of Technology (GIST)

M.S./Ph.D. in School of Integrated Technology

Advisor: Jin-Hyuk Hong

GPA: 4.07 / 4.5

Gwangju, Korea

Feb. 2019 – Feb. 2025

### Hongik University

B.S. in Computer Engineering

GPA: 4.08 / 4.5

Seoul, Korea

Mar. 2014 – 2019

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## PUBLICATIONS

### Conference Papers

- [c.3] OnomaCap: Making Non-speech Sound Captions Accessible and Enjoyable through Onomatopoeic Sound Representation

**JooYeong Kim**, Jin-Hyuk Hong.

*CHI 2025: ACM Conference on Human Factors in Computing Systems.* (acceptance rate: 25.1%)

- [c.2] Visible Nuances: A Caption System to Visualize Paralinguistic Speech Cues for Deaf and Hard-of-Hearing Individuals.

**JooYeong Kim**\*, Sooyeon Ahn\*, Jin-Hyuk Hong. (\*contributed equally)

*CHI 2023: ACM Conference on Human Factors in Computing Systems.* (acceptance rate: 27.6%)

- [c.1] We Play and Learn Rhythmically: Gesture-based Rhythm Game for Children with Intellectual Developmental Disabilities to Learn Manual Sign.

Youjin Choi\*, **JooYeong Kim**\*, ChanWoo Park, JeongYoun Kim, Ji Hyun Yi, Jin-Hyuk Hong. (\*contributed equally)

*CHI 2022: ACM Conference on Human Factors in Computing Systems.* (acceptance rate: 24.7%)

### Journal Papers

- [j.3] Visualizing Speech Styles in Captions for Deaf and Hard-of-Hearing Viewers

Sooyeon Ahn\*, **JooYeong Kim**\*, Choonsung Shin, Jin-Hyuk Hong. (\*contributed equally)

*International Journal of Human-Computer Studies*, 2025

- [j.2] Interactive Description to Enhance Accessibility and Experience of Deaf and Hard-of-Hearing Individuals in Museums.

**JooYeong Kim**, ChungHa Lee, JuYeon Kim, Jin-Hyuk Hong.  
*Universal Access in the Information Society*, 2023.

- [j.1] Immersion Measurement in Watching Videos Using Eye-tracking Data.

Youjin Choi\*, **JooYeong Kim**\*, Jin-Hyuk Hong. (\*contributed equally)  
*IEEE Transaction on Affective Computing*, 2022.

## Posters Papers

- [p.4] Understanding of Ceramic Image Classification based on Deep Learning.

DaeHo Lee, In-Taek Jung, JunDoo Choi, **JooYeong Kim**, JuYeon Kim, Jin-Hyuk Hong.  
*KSC 2021: Korea Software Congress*.

- [p.3] Gesture-based Rhythm Game for Learning Sign Language of Children with Severe Developmental Disabilities.

**JooYeong Kim**, Youjin Choi, In-Taek Jung, JiHyun Yi, Jeongyeon Kim, Jin-Hyuk Hong.  
*KSAAC 2020: Korea Society for Augmentative and Alternative Communication*.

- [p.2] Communication Education System Based on Gesture Recognition for Children with Severe Developmental Disabilities.

Intaek Jung, Youjin Choi, **JooYeong Kim**, Jeongyoun Kim, Jin-Hyuk Hong.  
*KSC 2020: Korea Software Congress*.

- [p.1] A Comparative Study on the Performance of Speech Recognition for a Speech Interface in a Filming Environment.

Sanghun Jeon, Youjin Choi, **JooYeong Kim**, Albert Deokyoung Yang, Mun Sang Kim, Jin-Hyuk Hong.  
*KCC 2019: Korea Computer Congress*.

## Archived Manuscripts (Under Review)

- [-] Voice-Visualized Message Interactions on Smartwatches

**JooYeong Kim**, Sooyeon Ahn, YoonJae Kim, Jin-Hyuk Hong.  
*Submitted Sep 2024*.

- [-] CuCap: Comparative Analysis of Customized Captioning between North American and South Korean d/Deaf and Hard-of-Hearing Users

Calua de Lacerda Pataca, SooYeon Ahn, Suhyeon Yoo, **JooYeong Kim**, Khai N. Truong, Jin-Hyuk Hong, Roshan L Peiris, Matt Huenerfauth.  
*Submitted Sep 2024*.

- [-] Pre-AttentiveGaze: Gaze-based Authentication Dataset with Momentary Visual Interactions

Junryeol Jeon, Yeo-Gyeong Noh, **JooYeong Kim**, Jin-Hyuk Hong.  
*Submitted May 2024*.

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## HONORS & AWARDS

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Inseong Hong bok-soon Scholarship

Nov. 2022

Scholarship for Women in Science and Technology, GIST (one of twelve)

Hongik University Scholarship

Mar. 2015 – Sep. 2018

Merit-based scholarships for 5 semesters

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## PATENTS

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Measuring apparatus and method for visualize voice information.

Jin-Hyuk Hong, **JooYeong Kim**, Sooyeon Ahn

Korea Patent Pending No. 10-2023-0101066 (Aug. 2023)

Method and apparatus for measuring degree of immersion for driver or contents viewer.

Jin-Hyuk Hong, **JooYeong Kim**, Youjin Choi

Korea Patent Registration No. KR102419860B1 (Jul. 2022)

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## RESEARCH PROJECTS

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Convergence culture virtual studio for realizing artificial intelligence-based metaverse.

Research Project supported by *Ministry of Science and ICT*

Apr. 2022 – Dec. 2023

Development of Intelligent Exhibition Commentary Platforms for Deaf - Korean Sign Language/Word Translation Systems.

Research Project supported by *Korea Creative Content Agency*

Nov. 2020 – Dec. 2022

Development of content creation and entertainment technologies based on intelligent authoring tool to enhance accessibility of social communication disabilities.

Research Project supported by *Korea Creative Content Agency*

Mar. 2020 – Dec. 2020

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## TEACHING EXPERIENCE

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Designing Artificial Intelligence for Culture Technology Applications

Spring 2022

*Teaching Assistant, CT4302-01, Instructor: Jin-Hyuk Hong*

- Presented the latest trends in natural language processing for cultural technology and taught coding exercises on basic natural language processing procedures for text generation.

Intelligent Agent

Fall 2020

*Teaching Assistant, CT5304 & AI6310, Instructor: Jin-Hyuk Hong*

- Developed coding exercises for chapters, created and presented recorded videos of tutorials, and participated in the evaluation of exercises and exams.

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## ACADEMIC SERVICE

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Technical Paper Reviewer – CHI 2024, CHI 2025

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## TALKS & PANELS

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HCI KOREA 2024 Invited Papers Session

Jan 2024

from 2023 SIGCHI-sponsored Top Conferences

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## ADDITIONAL SKILLS

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Python, PyTorch, JavaScript, Vue, Flask, C++, C, C#, R, Java, Android, Unity