

# JooYeong Kim

## PhD candidate

School of Integrated Technology

GIST, Republic of Korea

jooyeongkim.com

jspirit01@gm.gist.ac.kr

[Research Projects](#) 🔍

[Scholar](#) 🎓 [GitHub](#) 🐙

---

## 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.

---

## 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 – 2025

### Hongik University

B.S. in Computer Engineering

GPA: 4.08 / 4.5

Seoul, Korea

Mar. 2014 – 2019

---

## PUBLICATIONS

### Conference Papers

[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*, 2024

[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] A Study of Non-speech Sound Recognition using Onomatopoeic Representations.  
**JooYeong Kim**, Jin-Hyuk Hong.  
*KSC 2024: Korea Software Congress.*
- [p.4] A Study of Sound Balloon Generation System using Multimodal ChatGPT for Sound Accessibility  
**JooYeong Kim**, Jin-Hyuk Hong.  
*KSC 2024: Korea Software Congress.*
- [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)

- [-] OnomaCap: Making Non-speech Sound Captions Accessible and Enjoyable through Onomatopoeic Sound Representation  
**JooYeong Kim**, Jin-Hyuk Hong.  
*Submitted Sep 2024.*
- [-] 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.*

---

## HONORS & AWARDS

---

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

---

## PATENTS

---

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)

---

## RESEARCH PROJECTS

---

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

---

## TEACHING EXPERIENCE

---

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.

---

## ACADEMIC SERVICE

---

Technical Paper Reviewer – CHI 2024, CHI 2025

---

## TALKS & PANELS

---

HCI KOREA 2024 Invited Papers Session Jan 2024

---

from 2023 SIGCHI-sponsored Top Conferences

---

**ADDITIONAL SKILLS**

---

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