

# JOOYEONG KIM

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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 – Present

### Hongik University

B.S. in Computer Engineering

GPA: 4.08 / 4.5

Seoul, Korea

Mar. 2014 – 2019

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## RESEARCH INTERESTS

Human-Computer Interaction, Accessibility, AI-powered interactive system, Sound Visualization, Natural Language, User modeling

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## RESEARCH EXPERIENCE

Convergence culture virtual studio for realizing artificial intelligence-based metaverse

Research Project supported by *Ministry of Science and ICT*

Apr. 2022 – Present

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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## 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.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*.
- [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*.

## Conference Papers in Submission (under review)

- [u.2] Gaze-based Authentication with Momentary Visual Interactions  
Junryeol Jeon, Yeogyung Noh, **JooYeong Kim**, Jin-Hyuk Hong.  
*In submission to CHI 2024 (under review)*
- [u.1] Auto-punctuation: Visualizing Speech Styles in Captions for Deaf and Hard-of-Hearing Viewers.  
Sooyeon Ahn\*, **JooYeong Kim**\*, Jin-Hyuk Hong. (\*contributed equally)  
*In submission to CHI 2024 (under review)*

## 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*.

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## HONORS & AWARDS

Inseong Hong bok-soon Scholarship	Nov. 2022
Scholarship for Women in Science and Technology, GIST	
Hongik University Scholarship	Mar. 2015 – Sep. 2018
Merit-based scholarships for 5 semesters	

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## 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)

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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 2023

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## ADDITIONAL SKILLS

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Python, C++, C, C#, R, HTML, CSS, JavaScript, Java, Flask, Android, Vue, Unity, Pytorch

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## REFERENCES

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### **Jin-Hyuk Hong**

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Republic of Korea  
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