





- [c.5] "ErgoPulse: Electrifying Your Lower Body With Biomechanical Simulation-based Electrical Muscle Stimulation Haptic System in Virtual Reality."  
**Hwang, S.**, Oh, J., Kang, S., Seong, M., Elsharkawy, A., and Kim, S.  
*Proceedings of the 2024 CHI conference on Human Factors in Computing Systems* (Accepted)
- [c.4] "SYNC-VR: Synchronizing Your Senses to Conquer Motion Sickness for Enriching In-Vehicle Virtual Reality."  
Elsharkawy, A., Ataya, A., Yeo, D., An, E., **Hwang, S.**, and Kim, S.  
*Proceedings of the 2024 CHI conference on Human Factors in Computing Systems* (Accepted)
- [j.1] "Effect of Optical Flow and User VR Familiarity on Curvature Gain Thresholds for Redirected Walking."  
Lee, J., **Hwang, S.**, Ataya, A., and Kim, S.  
*Virtual Reality*
- [c.3] "Enhancing Seamless Walking in Virtual Reality: Application of Bone-Conduction Vibration in Redirected Walking."  **Honorable mention**  
**Hwang, S.**, Kim, Y., Seo, Y., and Kim, S.  
*2023 IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*
- [c.2] "Designing Virtual Agent Human–Machine Interfaces Depending on the Communication and Anthropomorphism Levels in Augmented Reality."  **Honorable mention**  
Kang, Y., Choi, S., An, E., **Hwang, S.**, and Kim, S.  
*Proceedings of the 2023 International Conference on Automotive UI*
- [c.1] "Electrical, Vibrational, and Cooling Stimuli-Based Redirected Walking: Comparison of Various Vestibular Stimulation-Based Redirected Walking Systems."  
**Hwang, S.**, Lee, J., Kim, Y., Seo, Y., and Kim, S.  
*Proceedings of the 2023 CHI conference on Human Factors in Computing Systems*
- [p.2] "REVES: Redirection Enhancement Using Four-Pole Vestibular Electrode Stimulation."  
**Hwang, S.**, Lee, J., Kim, Y., and Kim, S.  
*Extended Abstracts of the 2022 CHI conference on Human Factors in Computing Systems*
- [p.1] "Auditory and Olfactory Stimuli-Based Attractors to Induce Reorientation in Virtual Reality Forward Redirected Walking."  
Lee, J., **Hwang, S.**, Kim, K., and Kim, S.  
*Extended Abstracts of the 2022 CHI conference on Human Factors in Computing Systems*

## TEACHING EXPERIENCE

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### ▣ XR Project Class Teaching Assistant, Korea (GIST)

2022 Fall Semester – 2023 Spring Semester

#### Teaching Assistant

- Served as a teaching assistant in a project-based class
- Responsible for teaching, exam preparation, and evaluation of the Unity-based XR project

### ▣ 2019 GIST Global Science Camp, National University of Laos (NUOL), Laos

July 2019

#### Experiment Instructor

- Educational volunteer for college students of the NUOL and Khon, Kaen University of Thailand
- Teaching & Experimental Assist in the production of Dye-Sensitized Solar Cells using Anthocyanin

### ▣ 2019 GIST Science Camp, Korea (GIST)

January 2019

#### Experiment Team Leader, Design Team Leader

- Providing experimental education to elementary and middle school students in the community

## AWARDS & HONORS

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### ▣ Honorable Mentions, IEEE ISMAR

October 2023

- Honorable mention for being in the top 1% of conference papers

### ▣ Honorable Mentions, International ACM Conference on Automotive UI

September 2023

- Honorable mention for being in the top 5% of conference papers

### ▣ Special Recognitions, ACM UIST

May 2023

- Special Recognitions for Outstanding Reviews in 2023 UIST

### ▣ Gwangju Institute of Science and Technology President Award, Korea

August 2020

- 1st prize in table tennis robot at the 4th GIST Creative Convergence Competition in 2020

### ▣ Scholarship for Academic Excellence, Korea

September 2020 – December 2020

- GIST Scholarship for Academic Excellence

### ▣ Industry-Academic Cooperation Scholarship, Korea

December 2019 – February 2020

- Industry-Academic Cooperation Scholarship in BA Energy Lab

### ▣ Scholarship for Overseas Summer Semester Exchange Students, USA

June 2018 – August 2018

- Boston University Summer Semester Exchange Student Scholarship

### ▣ GIST Scholarship (Government supported), Korea

March 2017 – August 2021

- GIST Bachelor's Degree Government Scholarship

## INVITED TALKS

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### ▣ HCI Korea'24, ACM SIGCHI (Korea Local Chapter)

January 2024

- Invited Presentation in Top-Conference Sessions on Vestibular Stimuli-Based Redirected Walking.

## TECHNICAL STRENGTHS

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### ▣ Modeling & Designing

- Autodesk Inventor
- SolidWorks
- Blender
- KiCad

### ▣ Software & Tools

- COMSOL Multiphysics
- LABVIEW
- MATLAB
- Unity
- Three.js
- Cubase
- Adobe Premiere Pro
- Final Cut Pro

### ▣ Programming Languages

- C, C#, Python, JAVA, MATLAB

## STUDY ABROAD EXPERIENCE

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### ▣ Boston University Summer Sessions, USA

June 2018 – August 2018

#### Exchange Student

- Courses taken: JAVA programming language, Statistics

## EXTRA-CURRICULAR ACTIVITIES

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### ▣ GIST Society of Automotive Engineers, Korea (GIST)

October 2020 – March 2022

#### Founder

- GIST College Student Self-Created Automobile Club Establishment
- Responsible for designing and manufacturing steering systems

### ▣ GIST Student Creative Activity Support Initiative, Korea (GIST)

March 2020 – November 2020

#### Team Leader

- Support for student clubs in the COVID-19 Era
- Producing and distributing performance/activity videos
- Funded by GIST over 4,500\$

▣ **GIST Broadcasting Station, Korea (GIST)**

March 2019 – November 2020

Founder

Filming / Editing manager

- Establish a video production station of GIST
- Producing promotional videos for schools, videos of student activities, etc.
- Funded by GIST over 30,000\$.

▣ **GIST Human Rights Center, Korea (GIST).**

December 2018 – March 2019

Research Intern (Advisor: Kim, Gunoo)

- Intern of the Human Rights Center on campus
- A study involving law, ethics, morality, and philosophy of law