# **Kyungyeon Lee**

Ph.D. Student, Department of Computer Science University of Maryland, College Park Maryland, United States https://kyungyeon-lee.github.io/ kylee@umd.edu Google Scholar

# Education

<sup>†</sup> Indicates expected

2021–2027 †	Ph.D., Computer Science, University of Maryland, College Park
	Advisor: Jun Nishida
2016-2021	B.Sc., Computer Science, Ewha Womans University, Seoul, South Korea
	Advisor: Uran Oh

### **Research Interests**

Human-Computer Interaction (HCI), Haptics, Wearables, Accessibility, Human-Centered Computing

### **Publications**

Link: Paper

Personal Health Data Tracking by Blind and Low-Vision People: Survey Study
 Jarrett G.W. Lee, <u>Kyungyeon Lee</u>, Bongshin Lee, Soyoung Choi, JooYoung Seo, Eun Kyoung
 Choe
 Journal of Medical Internet Research, 25, e43917. (2023).

[2] Understanding the Two-Step Nonvisual Omnidirectional Guidance for Target Acquisition in 3D spaces

SeungA Chung, <u>Kyungyeon Lee</u>, Uran Oh *In 2021 IEEE International Symposium on Mixed and Augmented Reality (ISMAR) (pp. 339-346). IEEE*. Link: Paper

[3] Designing Product Descriptions for Supporting Independent Grocery Shopping of People with Visual Impairments

Kyungyeon Lee\*, Sohyeon Park\*, Uran Oh In Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems (pp. 1-6). Link: Paper, Video

- [4] Improving Mealtime Experiences of People with Visual Impairments SeungA Chung, Soobin Park, Sohyeon Park, Kyungyeon Lee, Uran Oh In Proceedings of the 18th International Web for All Conference (pp. 1-11). (2021). Best Technical Paper Nomination Link: Paper
- [5] Three-dimensional Nonvisual Directional Guidance for People with Visual Impairments SeungA Chung, <u>Kyungyeon Lee</u>, Sohyeon Park, Uran Oh In 2021 IEEE International Conference on Pervasive Computing and Communications Workshops and other Affiliated Events (PerCom Workshops) (pp. 81-86). IEEE. Link: Paper
- [6] **OverIT: An Interactive Overlay for Touchscreen-based UI Customization with a Programming by Demonstration**

Kyungyeon Lee, SeungA Chung, Uran Oh *The International Journal of Advanced Smart Convergence*, *10(3)*, *143-148. (2021)*. Link: Paper

[7] Investigating three-dimensional directional guidance with nonvisual feedback for target pointing task

SeungA Chung, Kyungyeon Lee, Uran Oh In 2020 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR-Adjunct) (pp. 206-210). IEEE. Link: Paper

[8] Understanding Interactive and Explainable Feedback for Supporting Non-Experts with Data Preparation for Building a Deep Learning Model

Yeonji Kim\*, <u>Kyungyeon Lee</u>\*, Uran Oh *The International Journal of Advanced Smart Convergence*, 9(2), 90-104. (2020). Link: Paper

## Research

University of Maryland, Research Assistant

June 2023 - Present

Sep 2021 - Jan 2023

- Advised by Dr. Jun Nishida
  - Conducting research on optimizing motor skill acquisition through personalization
  - Investigating the effects of modalities on perceptual and motor performance

**University of Maryland**, Research Assistant *Advised by Dr. Eun Kyoung Choe* 

- Conducted a survey to understand how blind and low-vision people engage in health activities, and how they collect and use their data about their health [1]
- Built an annotation app for stroke patients that is a multi-modal self-tracking application [demo]

#### Ewha Womans University, Research Assistant

Advised by Dr. Uran Oh

- Participated in multiple research projects focused on accessibility for people with visual impairment and developed extended reality systems aimed at improving their daily lives [3-5]
- Conducted research on non-visual feedback in virtual reality [2, 5, 7]

# Teaching

Web Application Development with JavaScript,	Spring 2023-Present
University of Maryland	
Single Page Web Application Development With JavaScript,	Fall 2021
University of Maryland	
Computational Thinking and Problem Solving,	Spring 2020
Ewha Womans University	

# Employment

IBM Korea, Undergraduate Mentee	Jul 2018 - Jan 2019
<ul> <li>Designed and implemented Achat, a schedule management system that sy users' schedules, which won the IBM CEO Award and was presented a 2018 [demo]</li> </ul>	vstematically manages as a poster at Hanium
CyberLogitec, Research Intern	Oct 2020 - Jan 2021
• Constructed additional health care data and conducted preprocessing of train an AI model for cancer diagnosis	DICOM metadata to
Innertainment, Software Engineer	Mar 2020 - Jun 2020
• Developed content recommendation system using TF-IDF and word2ve	с
Freelancer, Software Engineer and Designer	Mar 2016 - Oct 2021
<ul> <li>Developed and designed multiple mobile and web applications</li> </ul>	
Honors and Awards	
Summer Research Fellowship, University of Maryland	2024
Dean's Fellowship, University of Maryland	2022
Best Technical Paper Nomination, Web4All 2021	2021
Student Independent Research Competition (Ranked Second), ITRC Korea	a 2020
Student Research Grant, ITRC Korea	2020
Dean's Fellowship, Ewha Womans University	2019

Graduation Project (Ranked First in Research Track), Ewha Womans University	2019
Future Capability Development Scholarship, Ewha Womans University	2019
IBM CEO Award: Best Project, IBM Korea	2018
Finalist of Hanium Constest, Ministry of Science and ICT	2018
Tech Idea Hackathon Prime Pitch Day (Ranked Third), Ewha Womans University	2018
Academic Scholarship, Ministry of National Defense	2017

# Competences

- **Programming**: Java, Android (Java, Kotlin, React Native), C/C++, Unity (C#), Python, PHP, HTML, CSS, Javascript, React, SQL
- **Designing**: Adobe illustration, Figma, Fusion 360 (3D modeling)

### Service

#### **Student Volunteer**

- CHI 2021, 2023
- ISMAR 2020

#### Reviewer

- CHI 2023
- ISMAR 2023, 2024