

# Taejun Kim

Postdoctoral Researcher

Fields: Applied AI, Human-Computer Interaction, Ubiquitous Computing, Extended Reality

taejunkim.me@gmail.com

<https://taejunkim.com/>

## EDUCATION

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### KAIST

*Ph.D. in Computer Science*

Advisor: Geehyuk Lee

Thesis: Addressing Viewing-Inputting Conflict in Gaze Interaction through Spatial and Temporal Separation

Daejeon, Republic of Korea

2025

### KAIST

*M.S. in Computer Science*

Advisor: Geehyuk Lee

Daejeon, Republic of Korea

2020

### KAIST

*B.S. in Computer Science*

Daejeon, Republic of Korea

2018

## EMPLOYMENT

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### KAIST

*Postdoctoral Researcher (XR Workstation HCI Center, w/ Geehyuk Lee)*

Daejeon, Republic of Korea

Sep 2025 – Present

### Carnegie Mellon University

*Visiting Research Scholar (Future Interfaces Group, w/ Chris Harrison)*

Pittsburgh, PA, USA

May 2025 – Present

### Meta

*Research Scientist Intern (w/ Hemant Surale, Amy Karlson, Aakar Gupta, and Parastoo Abtahi)*

Toronto, ON, Canada

Jun 2022 – Dec 2022

## AWARDS & HONORS

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<b>Best Paper Honorable Mention Award (Top 5%), ACM CHI '26</b>	2026
<b>Best Paper Honorable Mention Award (Top 5%), ACM UIST '25</b>	2025
<b>Best Demo Award, Jury's Choice (Top 4%), ACM CHI '22</b>	2022
<b>ICT Challenge Award, Minister of Science, Republic of Korea (CES 2026 Travel Grant)</b>	2025
<b>Jang Young Sil Postdoctoral Grant, KAIST (50M KRW)</b>	2025
<b>KIA Research Fellowship, Kia Motors Group (3M KRW)</b>	2024
<b>Global Leadership Award, President of KAIST (1M KRW)</b>	2024
<b>Kim Young Han Global Leader Fellowship, KAIST (4M KRW)</b>	2023
<b>Inseo Engineering Fellowship, KAIST (1M KRW)</b>	2023
<b>Naver PhD Fellowship, Naver Corp. (5M KRW)</b>	2022
<b>Outstanding Master's Thesis Award, School of Computing, KAIST</b>	2021

## PUBLICATIONS

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- 🏆 [10] **HiFiGaze: Improving Eye Tracking Accuracy Using Screen Content Knowledge (Honorable Mention Award)**  
Taejun Kim, Vimal Mollyn, Riku Arakawa, Chris Harrison  
Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI 2026)  
<http://doi.org/10.1145/3772318.3791339>
- 🏆 [9] **TwinSpin: A Virtual Ball in a VR Controller Enabling In-Hand 3DoF Rotation (Honorable Mention Award)**  
Changsung Lim, Taejun Kim, Geehyuk Lee  
Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology (UIST 2025)  
<https://doi.org/10.1145/3746059.3747735>
- [8] **Typing Haptically: Towards Enabling Non-auditory Smartphone Text Entry with Haptic Feedback for Blind and Low Vision User**  
Jisu Yim, Donghyeon Ko, Taeho Kim, Taejun Kim, Jonggi Hong, Geehyuk Lee  
Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology (UIST 2025)  
<https://doi.org/10.1145/3746059.3747801>

- [7] **Over the Mouse: Navigating across the Z-dimension of GUI with Finger-Lifting Operations**  
YoungIn Kim, Yohan Yun, **Taejun Kim**, Geehyuk Lee  
Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI 2025)  
<http://doi.org/10.1145/3706598.3713340>
- [6] **Palmrest+: Expanding Laptop Input Space with Shear Force on Palm-Resting Area**  
Jisu Yim, Seoyeon Bae, **Taejun Kim**, Sunbum Kim, Geehyuk Lee  
Proceedings of the 37th Annual ACM Symposium on User Interface Software and Technology (UIST 2024)  
<https://doi.org/10.1145/3654777.3676371>
- [5] **WristMenu with Tactons: An Eyes- and Ears-free Menu with Tactons Describing Menu Items in the Wrist Rotation Space**  
Eunhye Youn, **Taejun Kim**, Geehyuk Lee  
International Journal of Human-Computer Interaction (IJHCI), Vol. 40, 2024 (Impact Factor: 4.7; Q1)  
<https://doi.org/10.1080/10447318.2022.2159780>
- [4] **QuadStretcher: A Forearm-Worn Skin Stretch Display for Bare-Hand Interaction in AR/VR**  
**Taejun Kim**, Youngbo Aram Shim, YoungIn Kim, Sunbum Kim, Jaeyeon Lee, Geehyuk Lee  
Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI 2024)  
<https://doi.org/10.48550/arXiv.2511.21157>
- [3] **STAR: Smartphone-Analogous Typing in Augmented Reality**  
**Taejun Kim**, Amy Karlson, Aakar Gupta, Tovi Grossman, Jason Wu, Parastoo Abtahi, Christopher Collins, Michael Glueck, Hemant Bhaskar Surale  
Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology (UIST 2023)  
<https://doi.org/10.48550/arXiv.2511.21143>
- [2] **Lattice Menu: A Low-Error Gaze-Based Marking Menu Utilizing Target-Assisted Gaze Gestures on a Lattice of Visual Anchors**  
**Taejun Kim**, Auejin Ham, Sunggeun Ahn, Geehyuk Lee  
Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI 2022)  
<https://doi.org/10.48550/arXiv.2511.21131>
- [1] **Heterogeneous Stroke: Using Unique Vibration Cues to Improve the Wrist-Worn Spatiotemporal Tactile Display**  
**Taejun Kim**, Youngbo Aram Shim, Geehyuk Lee  
Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI 2021)  
<https://doi.org/10.48550/arXiv.2511.16133>

## WORKSHOPS, POSTERS & DEMOS

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- [3] **Tension&Gaze: Gaze-Responsive UI Gated by Finger Tension**  
**Taejun Kim**, Ludwig Sidenmark, Parastoo Abtahi, Jisu Yim, YoungIn Kim, Geehyuk Lee  
Adjunct Proceedings of the 38th ACM Symposium on User Interface Software and Technology (UIST 2025 Demo)  
<https://doi.org/10.1145/3746058.3759018>
- 🏆 [2] **QuadStretch: A Forearm-wearable Multi-dimensional Skin Stretch Display for Immersive VR Haptic Feedback (Best Demo Award, Jury's Choice)**  
Youngbo Aram Shim, **Taejun Kim**, Geehyuk Lee  
Extended Abstracts of the 2022 CHI Conference on Human Factors in Computing Systems (CHI 2022 Demo)  
<https://doi.org/10.1145/3491101.3519908>
- [1] **QuadStretch: A Forearm-wearable Skin Stretch Display for Immersive VR Experience**  
Youngbo Aram Shim, **Taejun Kim**, Sangyoon Lee, Geehyuk Lee  
SIGGRAPH Asia 2022 Emerging Technologies (SA '22)  
<http://doi.org/10.1145/3550471.3564761>

## PATENTS

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- [4] Geehyuk Lee, **Taejun Kim**, Auejin Ham, Sunggeun Ahn, "Electronic Device for Providing Gaze-Based Menu Interface Utilizing Lattice of Visual Anchors, and Method of the Same", KR10-2829285, KAIST, Jun 2025.
- [3] Geehyuk Lee, Youngbo Shim, **Taejun Kim**, "Force Sensory Substitution Device Using Multiple Skin Stretch Tactor Pairs and Method of the Same", KR10-2820820, KAIST, Jun 2025.
- [2] Hwisung Park, Geehyuk Lee, Sunggeun Ahn, **Taejun Kim**, Yeonsu Kim, "Region of Interest Visualization Method of Electronic Apparatus", KR10-2694286, KAIST and ADD, May 2025.
- [1] Geehyuk Lee, Youngbo Shim, Jaeyeon Lee, **Taejun Kim**, "Wearable Tactile Display Device for Presentation of Continuous Parameters Using Multiple Skin Stretch Tactors and Operating Method Thereof", KR10-2339031, KAIST, Dec 2021.

## TEACHING

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### KAIST

<i>EE488: Interactive Wearable Computing Lab (Guest Lecturer)</i>	Fall 2021
<i>CS584: Human-Computer Interaction (Guest Lecturer)</i>	Fall 2021
<i>CS492: Wearable User Interface (Teaching Assistant)</i>	Spring 2023
<i>CS584: Human-Computer Interaction (Teaching Assistant)</i>	Fall 2021
<i>CS550: Software Engineering (Teaching Assistant)</i>	Spring 2021
<i>CS300: Introduction to Algorithms (Teaching Assistant)</i>	Fall 2020
<i>CS204: Discrete Mathematics (Teaching Assistant)</i>	Spring 2019
<i>CS230: System Programming (Teaching Assistant)</i>	Spring 2018
<i>CS101: Introduction to Programming (Teaching Assistant)</i>	Fall 2017

### INVITED TALKS & SEMINARS

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<b>UNIST</b> , Intro to HCI class, <i>Haptics, Text Entry, and Gaze Interaction</i> .	May 2024
<b>University College London</b> , High-beams seminar series, <i>Interface Control with Eye Movement</i>	May 2023
<b>Stanford University</b> , Stanford HCI lunch, <i>Interface Control with Eye Movement</i>	Nov 2022
<b>University of Toronto</b> , DGP lab, <i>Interface Control with Eye Movement</i>	Nov 2022

### ACADEMIC SERVICE

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#### Program Committee

CHI LBW 2025: Associate Chair  
ETRA Short Paper 2023-2025

#### Paper Review (59)

CHI '24, '25, '26  
UIST '24, '25, '26  
IMWUT '26  
CVPR '26 workshop  
CHI LBW '24, '25  
ETRA Short Papers '23, '24, '25  
DIS '26  
MobileHCI '24, AH '25, ISS '24, Siggraph Asia ET '24, WHC '23, INTERACT '23, IEEE VIS '26

#### Recognitions for Outstanding Reviews

CHI '24, '25 '26(×3), UIST '24, CHI LBW '24, WHC '23

#### Session Chairs

CHI '25: Haptic Technology Session  
CHI '26: Embodied AR/XR

### MENTORING

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<b>Changsung Lim</b> (KAIST, Master's Research)	Spring 2025
<b>Jisu Yim</b> (KAIST, Master's Research)	Spring 2024
<b>Seoyeon Bae</b> (KAIST, Undergraduate Research)	Spring 2024
<b>YoungIn Kim</b> (GIST, Undergraduate Research)	Fall 2023
<b>Auejin Ham</b> (GIST, Master's Research)	Fall 2021 - Spring 2022