## Taejun Kim, Ph.D.

CONTACT Email: taejun22222@gmail.com

URL: https://taejunkim.com

RESEARCH INTERESTS Eye tracking, Gaze analysis, Gaze-interactive application, AR/VR, User behavior modeling.

Future Interface Group, Carnegie Mellon University, Pittsburgh, USA

MAY. 2025 - Present

Ph.D. Researcher *Advisor*: Chris Harrison

Meta Reality Labs, Toronto, Canada

Jun. 2022 - Dec. 2022

Ph.D. Research Intern

Managers: Hemant Surale, Amy Karlson, and Aakar Gupta

**PUBLICATIONS** 

**Note about conference papers**: in Human-Computer Interaction, top-tier conferences maintain highly selective standards, subjecting full manuscripts to a rigorous, multi-stage review process. This results in high-quality archival proceedings, making conference proceedings the preferred publication venue for greatest impact.

**Note about venues**: CHI (the ACM Conference on Human Factors in Computing Systems) and UIST (the ACM symposium on User Interface Software and Technology) are both recognized as very top tier HCI conferences (Google Scholar and Microsoft Academic both rank them as #1 and #3). The average acceptance rate for CHI is 23% and UIST 21%.

#### **International Conference Papers**

- 1. TwinSpin: A Virtual Ball in a VR Controller Enabling In-Hand 3DoF Rotation Changsung Lim, Taejun Kim, Geehyuk Lee UIST 2025: ACM Symposium on User Interface Software and Technology (acceptance ratio: TBU%) https://doi.org/10.1145/3746059.3747735
- 2. Typing Haptically: Towards Enabling Non-auditory Smartphone Text Entry with Haptic Feedback for Blind and Low Vision Users

  Jisu Yim, Donghyeon Ko, Taeho Kim, Taejun Kim, Jonggi Hong, Geehyuk Lee

UIST 2025: ACM Symposium on User Interface Software and Technology (acceptance ratio: TBU%) https://doi.org/10.1145/3746059.3747801

- 3. Over the Mouse: Navigating across the Z-dimension of GUI with Finger-Lifting Operations YoungIn Kim, Yohan Yun, Taejun Kim, Geehyuk Lee CHI 2025: ACM Conference on Human Factors in Computing Systems (acceptance ratio: 25.1%) http://doi.org/10.1145/3706598.3713340
- 4. Palmrest+: Expanding Laptop Input Space with Shear Force on Palm-Resting Area Jisu Yim, Seoyeon Bae, Taejun Kim, Sunbum Kim, Geehyuk Lee UIST 2024: ACM Symposium on User Interface Software and Technology (acceptance ratio: 24.0%) https://doi.org/10.1145/3654777.3676371
- 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
  CHI 2024: ACM Conference on Human Factors in Computing Systems (acceptance ratio: 26.3%)
  https://doi.org/10.1145/3613904.3642067
- 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
   UIST 2023: ACM Symposium on User Interface Software and Technology (acceptance ratio: 25.1%)
   https://doi.org/10.1145/3586183.3606803
- 7. Lattice Menu: A Low-Error Gaze-Based Marking Menu Utilizing Target-Assisted Gaze Gestures on a Lattice of Visual Anchors

TAEJUN KIM 1 Last update: October 23, 2025

Taejun Kim, Auejin Ham, Sunggeun Ahn, Geehyuk Lee

CHI 2022: ACM Conference on Human Factors in Computing Systems (acceptance ratio: 12.5%) https://doi.org/10.1145/3491102.3501977

8. Heterogeneous Stroke: Using Unique Vibration Cues to Improve the Wrist-Worn Spatiotemporal Tactile Display

Taejun Kim, Youngbo Aram Shim, Geehyuk Lee

CHI 2021: ACM Conference on Human Factors in Computing Systems (acceptance ratio: 26.3%) https://doi.org/10.1145/3411764.3445448

#### **International Journal Papers**

1. 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

IJHCI 2022: International Journal of Human-Computer Interaction (Impact Factor: 3.353)

https://doi.org/10.1080/10447318.2022.2159780

#### **Extended Abstracts: Posters and Demos**

1. Tension&Gaze: Gaze-Responsive UI Gated by Finger Tension

**Taejun Kim**, Ludwig Sidenmark, Parastoo Abtahi, Jisu Yim, YoungIn Kim, Geehyuk Lee UIST 2025 Demo: ACM Symposium on User Interface Software and Technology (acceptance ratio: TBU%)

https://doi.org/10.1145/3746058.3759018

2. **QuadStretch:** A Forearm-wearable Multi-dimensional Skin Stretch Display for Immersive VR Haptic Feedback

Youngbo Aram Shim, Taejun Kim, Geehyuk Lee

CHI 2022 Demo: ACM Conference on Human Factors in Computing Systems

https://doi.org/10.1145/3491101.3519908

3. QuadStretch: A Forearm-wearable Skin Stretch Display for Immersive VR Experience

Youngbo Aram Shim, Taejun Kim, Sangyoon Lee, Geehyuk Lee

Siggraph Asia Emerging Technology Systems

http://doi.org/10.1145/3550471.3564761

# AWARDS & HONOR

#### Best Paper Honorable Mention Award, ACM UIST 2025

SEP. 2025

Presenting "TwinSpin: A Virtual Ball in a VR Controller Enabling In-Hand 3DoF Rotation"

## Best Demo Award, Jury's Choice, ACM CHI 2022

MAY. 2022

Demonstrating "QuadStretch: A Forearm-wearable Multi-dimensional Skin Stretch Display for Immersive VR Haptic Feedback"

#### ICT Challenge Award, Minister of Science, Republic of Korea.

AUG. 2025

Exo-skeleton extension for VR controllers enabling force feedback - CES 2026 Travel Grant

## **Jang Young Sil Postdoctoral Fellowship**, KAIST.

Apr. 2025

Postdoctoral Fellowship - 50 Million KRW

## KIA Research Fellowship, KIA Motors Corp.

Mar. 2024

Ph.D. Fellowship - 3 Million KRW

#### 2024 Global Leadership Awards, President of KAIST.

FEB. 2024

Ph.D. Award - 1 Million KRW

#### Kim Young Han Global Leader Fellowship, KAIST.

JUL. 2023

Ph.D. Fellowship - 4 Million KRW

## ${\bf Inseo\ Precision\ Engineering\ Fellowship}, KAIST.$

MAY. 2023

Ph.D. Fellowship - 1 Million KRW

TAEJUN KIM 2 Last update: October 23, 2025

Naver PhD Fellowship, Naver Corp.

Ph.D. Fellowship - 5 Million KRW

Outstanding Master's Thesis Award, KAIST School of Computing

Thesis Title: "Improving Recognition Accuracy of Wrist-Worn Spatiotemporal Tactile Display using Heterogeneous Vibrotactile Stimuli"

Minister of Science and ICT of the Republic of Korea

EDUCATION Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, Korea

DEC. 2022

FEB. 2021

Ph.D. in Computer Science

2025

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

Lattice Menu and Tension&Gaze"

Advisor: Geehyuk Lee

Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, Korea

M.S. in Computer Science

2020

Thesis: "Improving Recognition Accuracy of Wrist-Worn Spatiotemporal Tactile Display using Heterogeneous Vibrotactile Stimuli"

Advisor: Geehyuk Lee

**Korea Advanced Institute of Science and Technology (KAIST)** 

Daejeon, Korea

B.S. in Computer Science

2018

INVITED TALKS Haptics, Text Entry, and Gaze Interaction

MAY. 2024

Introduction To Human-Computer Interaction, UNIST, Host: Jaeyeon Lee

Haptics, Text Entry, and Gaze Interaction

May. 2024

Interactive Wearable Computing Class, KAIST, Host: Ian Oakley

**Interface Control with Eye Movement** 

Mar. 2023

High-Beams seminar series, University College London, Host: Kaan Akşit

**Interface Control with Eye Movement** 

Nov. 2022

Stanford HCI Lunch, Stanford University, Host: Sean Liu

**Interface Control with Eye Movement** 

Nov. 2022

DGP Lab, University of Toronto, Host: Karthik Mahadevan

ACADEMIC SERVICE Program Committee

CHI LBW 2025: Associate Chair

ETRA Short Papers 2023-2025

Paper Review (46)

CHI 2024\*, 2025\*, 2026, UIST 2024\*, 2025, CHI LBW 2024\*, 2025, ETRA Short Papers 2023-2025, Mo-

bileHCI 2024, AH 2025, ISS 2024, SIGGRAPH Asia ET 2024, WHC 2023\*, INTERACT 2023

(\*Special recognition for outstanding reviews)

**Session Chair** 

CHI 2025: Haptic Technology Session

TEACHING Guest Lecturer

Ост. 2021

Lecture on SPSS & R practice, CS584, KAIST

**Teaching Assistant** 

CS492 Wearable User Interface, KAIST Spring 2023 CS584 Human-Computer Interaction, KAIST Fall 2021

CS550 Software Engineering, KAIST
CS300 Introduction to Algorithms, KAIST
CS204 Discrete Mathematics, KAIST
Spring 2021
Spring 2019

TAEJUN KIM 3 Last update: October 23, 2025