# Taejun Kim

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

Future Interface Group, Carnegie Mellon University, Pittsburgh, USA

MAY. 2025 – Present

Visiting 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**

- 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
- 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
- 3. 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
- 4. 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

5. 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

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

6. 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

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

Youngbo Aram Shim, Taejun Kim, Geehyuk Lee

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

https://doi.org/10.1145/3491101.3519908

2. 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

### Outstanding Master's Thesis Award, KAIST School of Computing

FEB. 2021

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

**CHI '22 Best Demo Award**, ACM Conference on Human Factors in Computing Systems MAY. 2022 Demonstrating "QuadStretch: A Forearm-wearable Multi-dimensional Skin Stretch Display for Immersive VR Haptic Feedback"

Naver PhD Fellowship, Naver Corp.

DEC. 2022

Ph.D. Fellowship - 5 Million KRW

**Inseo Precision Engineering Fellowship**, KAIST.

MAY. 2023

Ph.D. Fellowship - 1 Million KRW

Kim Young Han Global Leader Fellowship, KAIST.

JUL. 2023

Ph.D. Fellowship - 4 Million KRW

2024 Global Leadership Awards, President of KAIST.

FEB. 2024

Ph.D. Award - 1 Million KRW

KIA Research Fellowship, KIA Motors Corp.

MAR. 2024

Ph.D. Fellowship - 3 Million KRW

Jang Young Sil Postdoctoral Fellowship, KAIST.

Apr. 2025

Postdoctoral Fellowship - 50 Million KRW

#### **EDUCATION**

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

Daejeon, Korea

Ph.D. in Computer Science

Advisor: Geehyuk Lee, Ph.D.

2025

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, Ph.D.

**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

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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

#### Reviewer (40)

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

OCT. 2021 **TEACHING Guest Lecturer** 

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 Spring 2021 CS300 Introduction to Algorithms, KAIST Fall 2020 CS204 Discrete Mathematics, KAIST Spring 2019 CS230 System Programming, KAIST Spring 2018 CS101 Introduction to Programming, KAIST Fall 2017

SKILLS Eye Tracking, PyTorch, Tensorflow, Pandas, Numpy, OpenCV, Unity, CSharp, Github, Flask, Oculus SDK,

MRTK Hololens SDK, Autodesk Fusion, 3D Printing, Circuit Design, Swift, Xcode, Laser Cutting

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