KAN KUSAKABE

Hokkaido University, Japan
kusakabe.kan.v5@elms.hokudai.ac.jp
https://kankusakabe.github.io/

RESEARCH INTEREST

Human-Computer Interaction (HCI); Interaction Technique for Mobile Device; Accessibility; Sensing Technique; UI/UX.

EDUCATION

Hokkaido University, Japan *April 2024 —*
Doctor of Computer Science, Advisor: Daisuke Sakamoto

Hokkaido University, Japan *April 2022 – March 2024*
Master of Computer Science, Advisor: Daisuke Sakamoto

Hokkaido University, Japan *April 2020 – March 2022*
Bachelor of Computer Science, Advisor: Daisuke Sakamoto

National Institute of Technology (KOSEN) Gifu College, Japan,
A unique 5-year engineering college system in Japan. *April 2015 – March 2020*
Associate Degree of Engineering, Advisor: Deguchi Toshinori

PAPERS

Peer-reviewed International Conferences

- Yuki Abe*, **Kan Kusakabe***, Myungguen Choi*, Daisuke Sakamoto, Tetsuo Ono. *Joint first authors. Understanding Usability of VR Pointing Methods with a Handheld-style HMD for Onsite Exhibitions. ACM CHI Conference on Human Factors in Computing Systems (CHI 2025), ACM, April 2025. (Conference acceptance rate: 27 %; **Honorable Mentions: top 5 % of accepted papers**). [doi]

Peer-reviewed Journals

- **Kan Kusakabe**, Kaori Ikematsu, Daisuke Sakamoto, Tetsuo Ono. BodSockets: Enabling Back-of-Device Interaction on Smartphones with Socket-based Interface. Transactions of the Information Processing Society of Japan, Vol. 66, No. 12, Feb. 2025. [doi]
- **Kan Kusakabe**, Daisuke Sakamoto, Tetsuo Ono. RingSense: Exploring User-defined Gestures for Phone Ring Holders. Transactions of the Information Processing Society of Japan, Vol. 66, No. 2, Feb. 2025. [doi]

Peer-reviewed Domestic Conferences

- Shingo Toyoda, **Kan Kusakabe**, Daisuke Sakamoto. KanaShark: Exploration of Japanese Gesture Input Method based on SHARK2 (in Japanese). The 33rd Workshop on Interactive Systems and Software (WISS'25), Japan Society for Software Science and Technology, pp.158-164, December 2025. Sponsor Award. [pdf]
- Hiromu Kobayashi, Yuto Suzuki, **Kan Kusakabe**, Daisuke Sakamoto. Proposal and Evaluation of a Redirection Method based on Unperceived Thresholds for Relieving Physical Constraints in Seated Positions (in Japanese). The 33rd Workshop on Interactive Systems and Software (WISS'25), Japan Society for Software Science and Technology, pp.126-133, December 2025. [pdf]
- **Kan Kusakabe**, Daisuke Sakamoto, Tetsuo Ono. Design and Implementation of a Phone-Ring-Type Device for Back-of-Device Gesture Interaction (in Japanese). The 30th Workshop on Interactive Systems and Software (WISS'22), Japan Society for Software Science and Technology, pp.8-14, December 2022. (Long-press, acceptance rate: 12.5%). [pdf]

Other Publications (Non-peer-reviewed)

- **Kan Kusakabe***, Yuki Abe*, Daisuke Sakamoto, Tetsuo Ono. *Joint first author. Game-2-X: A System Connecting Different Types of Gameplay (in Japanese). The 31st Workshop on Interactive Systems and Software (WISS'23), Japan Society for Software Science and Technology, Demonstration. December 2023. [pdf]
- **Kan Kusakabe**, Myungguen Choi, Daisuke Sakamoto, Tetsuo Ono. Exploratory Study of Hand Gesture Interaction for Stepless Adjustment Interfaces (in Japanese). Information Processing Society of Japan, 2022-HCI-197(25), 1-8, March 2022. [web]

Invited Talks

- The 33rd Workshop on Interactive Systems and Software. December 4 2025. [web]
- The 24th Forum on Information Technology. September 5 2025. [web]
- Public Lecture / Yokohama City MICE Next-Generation Development Initiative: CHI 2025 Symposium. April 26 2025. [web]

SERVICE

- ACM CHI 2026 (Paper Track)

FELLOW

1. Hokkaido University EXEX Doctoral Fellowship. 2024–2027. $3,000 annual and stipend.

2. HOKUDAI TECH GARAGE Project. 2 months (March-April 2022), $ 2,000 per project.

TECHNICAL STRENGTHS

- **Domain**: Rapid Prototyping, 3D Print, Mobile Application, Machine-Learning (ML)

- **Programming Languages**: Python, C, C#, JavaScript, PHP, Swift, Objective-C, Kotlin, Java, Arduino, Processing, Dart, LATEX

- **Frameworks & Libraries**: Tensorflow, Pytorch, Next.js, Flutter, React, Unity

- **Platforms & Development Environments**: Android, iOS, Web (Frontend, Backend, Database), Mac, Arduino Platform, Raspberry Pi

- **Design**: Adobe (Illustrator, Photoshop, Premiere Pro, After Effects, Audition, Figma), Fusion 360