Changhyeon Park

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Daejeon, Republic of Korea

RESEARCH INTERESTS

I am interested in context-aware sensing systems that utilize user and physical data to support seamless and meaningful interactions. My goal is to enable a wide range of applications on wearable devices and mobile platforms by leveraging **sensing** data to interpret context and guide interaction.

EDUCATION

- **Hongik University**　　　　　　　　　　　　　　　　　　　　　　　　　　　*Mar. 2018 - Feb. 2024*
  B.S. in Computer Engineering　　　　　　　　　　　　　　　　　　　　　　　Seoul, S.Korea
  ◦ GPA: 4.13/4.5
  ◦ Advisor: Prof. Jaeyoung Park

- **KAIST (Korea Advanced Institute of Science and Technology)**　　　　　　　*Mar. 2024 - present*
  M.S. in Graduate School of Culture Technology　　　　　　　　　　　　　　Daejeon, S.Korea
  ◦ Advisor: Prof. Sang Ho Yoon

PUBLICATIONS　　　　　　　C=CONFERENCE, J=JOURNAL, P=PATENT, S=IN SUBMISSION, T=THESIS

[J.3] **Changhyeon Park**, Yubin Lee, and Sang Ho Yoon. (2025). **UltraBoard: Always-available Wearable Ultrasonic Mid-air Haptic Interface for Responsive and Robust VR Inputs**. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.* 9, 2, Article 44 (June 2025), 31 pages. https://doi.org/10.1145/3731413

[J.2] **C. Park**, S. Hong and J. Park, (2024). **Effect of Rendering Virtual Vibrotactile Motion on the Perceived Lateral Force**. *IEEE Access*, vol. 12, pp. 173792-173799, doi: 10.1109/ACCESS.2024.3502903.

[J.1] **C. Park**, J. Park, (2024). **Virtual Object Weight Information with Multi-modal Sensory Feedback during Remote Manipulation**. *Journal of Internet Computing and Services*, 25(1), 9–15. https://doi.org/10.7472/JKSII.2024.25.1.9

PROJECTS

- **Facial Recognition Smart Cap for Convenient Typing System**　　　　　　　*Mar. 2024 - June. 2024*
  [Wearable facial Recognition System | Tiny ML | KAIST EE488 Course Project]　　📄 pdf
- **VRMoji:Natural Avatar Movement based on Real-time Facial Expression Recognition system** *Mar. 2024 - June. 2024*
  [HMD Expression Recognition System | Unity, OpenCV | KAIST GCT623 Course Project]　📄 pdf
- **ImaginARyDance: Multi-Limb Dance Motion Guidance in XR using Metaphoric Imagery**　*Sep. 2024 - Dec. 2024*
  [Dance Motion Guidance in VR | Unity | KAIST CS584 Course Project]　　　　📄 pdf
- **Ultrasonic Hand Gesutre Classification for Realtime interactive music control**　*Mar. 2025 - June. 2025*
  [Ultrasound hand gesture classification | Arduino | KAIST GCT600 Course Project]　📄 pdf

SKILLS

- **Programming Languages:** C, C++, Python
- **Application development:** Flutter
- **Data Science & Machine Learning:** Pytorch, TinyML
- **DevOps & Version Control:** Git
- **Mathematical & Statistical Tools:** SPSS, Minitab
- **3D Modeling & PCB design Tools:** Fusion360
- **Design Tools:** Adobe Photoshop, Adobe Illustrator, Figma
- **Other Tools & Technologies:** Arduino, Unity

HONORS AND AWARDS

- **Academic excellence scholarships**　　　　　　*Spring 2019, Fall 2021, Spring/Fall 2022, Spring 2023*
  Hongik University