

RESEARCH INTERESTS

Smartglasses interaction, gestural interaction, subtle interaction, wearable computing, augmented reality

EDUCATION

Korea Advanced Institute of Science and Technology Ph.D. in Graduate School of Culture Technology	Daejeon, Republic of Korea Sep 2021–Present
Korea Advanced Institute of Science and Technology M.S. in Graduate School of Culture Technology – Thesis: “Attention model of between and during tasks based on wearable activity tracking”	Daejeon, Republic of Korea Sep 2014–Aug 2017
Yonsei University B.S. in Electrical & Electronic Engineering	Seoul, Republic of Korea Mar 2010–Aug 2014

WORK EXPERIENCE

KAIST CTRI/KI-ITC ARRC Research Scientist(As a substitute of the military duty)	Daejeon, Republic of Korea Sep 2017 –Aug 2021
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QUALIFICATIONS

Honorable Mention Award <i>19th International Conference on Human-Computer Interaction with Mobile Devices and Services</i>	MobileHCI'17
Honorable Mention Award <i>18th International Conference on Human-Computer Interaction with Mobile Devices and Services</i>	MobileHCI'16
Best Poster Award <i>29th ACM User Interface Software and Technology Symposium</i>	UIST'16
Korea Eyewear Design Competition - Silver Prize <i>Korea Optical Industry Agency</i>	2016
Young CEO Excavation Competition - Bronze Prize <i>Yonsei University</i>	2013
National Science and Technology Scholarship <i>Korea Student Aid Foundation(KOSAF)</i>	2010–2013

PUBLICATIONS

- Pai, Y.S., Bait, M.L., **Lee, J.**, Xu, J., Peiris, R. L., Woo, W., Billinghamurst, M. Kunze, K. (2020). 3D Hand Tracking in the Presence of Excessive Motion Blur. *Virtual Reality*, 1-15. **Springer VR**
- Park, G., Argyros, A., **Lee, J.**, & Woo, W. (2020). 3D Hand Tracking in the Presence of Excessive Motion Blur. *IEEE Transactions on Visualization and Computer Graphics*, 26(5), 1891-1901. **TVCG**

3. Yeo, H. S., **Lee, J.**, Bianchi, A., Samboy, A., Koike, H., Woo, W., & Quigley, A. (2020, March). WristLens: Enabling Single-Handed Surface Gesture Interaction for Wrist-Worn Devices Using Optical Motion Sensor. *In Proceedings of the Augmented Humans International Conference*. **AHs20**
4. Li, R., **Lee, J.**, Woo, W., & Starner, T. (2020, March). KissGlass: Greeting Gesture Recognition using Smart Glasses. *In Proceedings of the Augmented Humans International Conference*. **AHs20**
5. Yeo, H. S., Wu, E., **Lee, J.**, Quigley, A., & Koike, H. (2019, October). Opisthenar: Hand Poses and Finger Tapping Recognition by Observing Back of Hand Using Embedded Wrist Camera. *In Proceedings of the 32nd Annual ACM Symposium on User Interface Software and Technology* (pp. 963-971). **UIST19**
6. Yeo, H. S., **Lee, J.**, Kim, H. I., Gupta, A., Bianchi, A., Vogel, D., ... & Quigley, A. (2019, October). WRIST: Watch-Ring Interaction and Sensing Technique for Wrist Gestures and Macro-Micro Pointing. *In Proceedings of the 21st International Conference on Human-Computer Interaction with Mobile Devices and Services* (pp. 1-15). **MobileHCI19**
7. **Lee, J.**, Aggarwal, S., Wu, J., Starner, T., & Woo, W. (2019, September). SelfSync: exploring self-synchronous body-based hotword gestures for initiating interaction. *In Proceedings of the 23rd International Symposium on Wearable Computers* (pp. 123-128). **ISWC19**
8. Kim, H. I., **Lee, J.**, Yeo, H. S., Quigley, A. J., & Woo, W. (2019, April). SWAG demo: smart watch assisted gesture interaction for mixed reality head-mounted displays. *In Adjunct Proceedings-2018 IEEE International Symposium on Mixed and Augmented Reality* **ISMAR-Adjunct19**
9. **Lee, J.**, Kim, E., Yu, J., Kim, J., & Woo, W. (2018, July). Holistic Quantified Self Framework for Augmented Human. *In International Conference on Distributed, Ambient, and Pervasive Interactions* (pp. 188-201). Springer, Cham.
10. **Lee, J.**, Yeo, H. S., Starner, T., Quigley, A., Kunze, K., & Woo, W. (2018, February). Automated Data Gathering and Training Tool for Personalized“ Itchy Nose”. *In Proceedings of the 9th Augmented Human International Conference*. **AH-Adjunct18**
11. **Lee, J.**, Yeo, H. S., Dhuliawala, M., Akano, J., Shimizu, J., Starner, T., ... & Kunze, K. (2017, September). Itchy nose: discreet gesture interaction using EOG sensors in smart eyewear. *In Proceedings of the 2017 ACM International Symposium on Wearable Computers*(pp. 94-97). ACM. **ISWC17**
12. Yeo, H. S., **Lee, J.**, Bianchi, A., Harris-Birtill, D., & Quigley, A. J. (2017, September). SpeCam: sensing surface color and material with the front-facing camera of mobile device. *In Proceedings of the 19th International Conference on Human-Computer Interaction with Mobile Devices and Services*. ACM. **MobileHCI17(Honourable Mention)**
13. Dhuliawala, M., **Lee, J.**, Shimizu, J., Bulling, A., Kunze, K., Starner, T., & Woo, W. (2016, October). Smooth eye movement interaction using EOG glasses. *In Proceedings of the 18th ACM International Conference on Multimodal Interaction* (pp. 307-311). ACM. **ICMI16**
14. Yeo, H. S., **Lee, J.**, Bianchi, A., & Quigley, A. (2016, October). Sidetap & Slingshot Gestures on Unmodified Smartwatches. *In Proceedings of the 29th Annual Symposium on User Interface Software and Technology* (pp. 189-190). ACM. **UIST-Adjunct16(Best Poster)**
15. Shimizu, J., **Lee, J.**, Dhuliawala, M., Bulling, A., Starner, T., Woo, W., & Kunze, K. (2016, September). Solar system: smooth pursuit interactions using EOG glasses. *In Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct* (pp. 369-372). ACM. **Ubicomp-Adjunct16**
16. Yeo, H. S., **Lee, J.**, Bianchi, A., & Quigley, A. WatchMI: pressure touch, twist and pan gesture input on unmodified smartwatches. *In Proceedings of the 18th International Conference on Human-Computer Interaction with Mobile Devices and Services, 2016* **MobileHCI16(Honourable Mention)**
17. Oh, J. Y., **Lee, J.**, Lee, Y. J., & Wohn, K. Y. “Vernacular Sound”: System for Soundscaping of Everyday Objects. *In Proceedings of 22nd International Symposium on Electronic Art, 2016* **ISEA16**
18. An, S., **Lee, J.**, Shim, S. & Lee, J. PlayLight: Enriching Music Experiences through Interactive Lighting Based on Motion. *In Proceedings of 22nd International Symposium on Electronic Art, 2016* **ISEA16**

19. Lee, S., **Lee, J.**, Suh, K., & Doh, Y. Y. (2016). A Mobile Game Design Study Using Gamification and Symbolization Strategies to Promote Daily Physical Activity. *Proceedings of HCI Korea, 170-177*. **HCIKorea16**

RELATED SKILLS

- **Languages:**
Python, Java, MATLAB, C, Processing, HTML/CSS
- **Frameworks:**
Flask, WordPress
- **Developer Tools:**
Git, Docker, Android Studio, IntelliJ, Unity

LANGUAGES

- **Korean:** Native
- **English:**
Speak fluently and read/write with high proficiency

PROJECTS

WISE AR UI/UX Platform Development for Smartglasses	Sep 2017–Present
Institute for Information and Communications Technology Promotion(IITP)	Role: Researcher/Manager
Spatial data-based cultural content creation and production infrastructure creation technology development	Sep 2017–Apr 2019
Korea Creative Content Agency(KOCCA)	Role: Researcher
Human-centered Augmented Human Platform to Leverage Big data/AI	Mar –Oct 2018
KAIST	Role: Researcher
Study on contents authoring, experience, service platforms based on Augmented Reality	Sep –Dec 2017
KAIST	Role: Researcher
Usability Study on Optical Trackpad input device	Jul –Dec 2016
CrucialTec	Role: Researcher
Developing supporting framework for manufacturing to services	Aug 2015–Nov 2016
Korea Evaluation Institute of Industrial Technology(KEIT)	Role: Researcher
Convergence and Guidelines creation program for the collaboration between the different majors Students	May –Dec 2012
Korea Foundation for the Advancement of Science and Creativity(KOFAC)	Role: Researcher/Manager
Idea proposal project	Apr–Jul 2012
Korea Hitek	Role: Researcher/Manager

EXPERIENCE

Teaching Assistant at KAIST	
- Human-Computer Interaction for Culture Technology (CTP443)	Fall 2015
Visiting Research	
- School of Interactive Computing, Georgia Institute of Technology	Mar–Apr2018
- Graduate School of Media Design, Keio University	Jan–Feb 2016
Paper Reviewer	
- CHI'21/'20/'19LBW, ISWC'20, ICMI'20, TEI'20, ISMAR'19, VRST'18	
Student Volunteer	
- AH'18, Ubicomp'17, UIST'16	

REFERENCES

References available upon request.