

BOKYUNG LEE

+82 10 3650 7644

bokyoung.lee.lydia@gmail.com | <https://boleehci.com>

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST) MA.& Ph.D. of Engineering <i>Industrial Design</i> <ul style="list-style-type: none">Embodied Design Toolkit for VR/ARInteractive Digital Humans in Design Tools	Mar. 2015 – Feb 2020 Daejeon, South Korea
TU Delft M.A. Exchange Program <i>Department of Design Engineering</i>	Sep. 2014 – Feb 2015 Delft, Netherlands
Aalto University Undergraduate Exchange Program <i>School of Science</i>	Jan. 2012 – Aug 2012 Helsinki, Finland
Korea Advanced Institute of Science and Technology (KAIST) Bachelor of Engineering <i>Industrial Design & Technology Management</i>	Feb. 2009 – Feb 2014 Daejeon, South Korea

WORK EXPERIENCE

Samsung Research <i>UX Innovation Lab</i> Senior Designer <ul style="list-style-type: none">Robot Interactions	Sep 01. 2022 – current Seoul, South Korea
Autodesk Research <i>Simulation, Optimization, and Systems Group</i> Senior Research Scientist <ul style="list-style-type: none">Nominated as a Autodesk Research's Outcomes Planning Group Researcher (Human-Centered Building Design sector).	Mar 30. 2020 – Aug 19.2022 Toronto, Canada
Autodesk Research <i>Complex Systems Group</i> Research Intern <ul style="list-style-type: none">Vision-based Approach for Human-Building Interaction SystemsSkeletonized Video Analysis Tool	Nov 6. 2018 – Aug 2. 2019 Toronto, Canada

HONORS AND AWARDS

ACM Honorable Mention Paper Award (Top 5%) ACM Designing Interactive Systems Conference	2021
ACM Best Paper Award (Top 1%) ACM Hum.-Comput. Interact. Computer Supported Cooperative Work and Social Computing.	2020
ACM Honorable Mention Paper Award (Top 5%) ACM Hum.-Comput. Interact. Computer Supported Cooperative Work and Social Computing.	2019
Gender Equality Pictogram Bronze Award hosted by Choongchung City, Korea	2014
Location-Based Service (LBS) Web & Application Contest hosted by Korea Communication and Commissions organized by Korea Internet & Security Agency	2013
Innoplolis Idea Contest Grand Prize hosted by Ministry of Knowledge Economy of Korea	2013

PATENTS

Furniture Design Apparatus Displaying Personalized Guide Information Invention field: ICT/SW, KR-10-2018-0002957	Jan 2018
Mobile Robot and control method thereof Invention field: ICT/SW, 10-2023-0073516 (2023.06.08)	Jun 2023

ACADEMIC ACHIEVEMENTS

- Bokyung Lee, Michael Lee, Jacky Bibliowicz, Rhys Goldstein, Jeremy Mogk, Alexander Tessier., 2023
Generative design for COVID-19 and future pathogens using stochastic multi-agent simulation, Journal of Sustainable Cities and Society, Volume 97, 104661, ISSN 2210-6707
- Bokyung Lee, Daniel Saakes., 2021
Understanding the Roles of Intelligent Product-Customization Systems through Expert Interviews, International Association of Societies of Design Research (IASDR 2021) *full paper*
- Bokyung Lee, Michael Lee, Jacky Bibliowicz, Rhys Goldstein, Jeremy Mogk, Alexander Tessier.,
Simulation and Visualization of Virus Transmission for Architectural Design Analysis, ACM International Conference on Computer Graphics and Interactive Techniques (SIGGRAPH 2021) *talks*
- Bokyung Lee, Michael Lee, Jeremy Mogk, Rhys Goldstein, Jacky Bibliowicz, Frederik Brudy, Alexander Tessier., **Designing a Multi-Agent Occupant Simulation System to Support Facility Planning and Analysis for COVID-19**, ACM Designing Interactive Systems (DIS 2021) / **Honorable Mention Award (Top 5%)** *full paper*
- Aigerim Shunayeva, Taesu Kim, Bokyung Lee, Hyeon-Jeong Suk., **Evaluating Color and Material of Home Appliances in Virtual Homes during the Early Stage of Design**, The Congress of the International Color Association. (AIC 2021) *full paper*
- Bokyung Lee, Michael Lee, Pan Zhang, Alexander Tessier, Daniel Saakes, Azam Khan., 2020
Socio-Spatial Comfort: Using Vision-based Analysis to Inform User-Centred Human-Building Interactions, ACM Hum.-Comput. Interact. 4, CSCW3, Article 238 (December 2020), 33 pages. / **Best Paper Award (Top 1%)** *full paper*
- Bokyung Lee, **Embodied Design Toolkits for Consumers and Creators**, Ph.D Thesis *Supervisor: Daniel Saakes* 2020
- Jaeho Sung, Bokyung Lee, Daniel Saakes., **PoseScope: Pose-based Analysis System for Long-term Observation Studies**, ACM Nordic Conference on Human-Computer Interaction (NordiCHI 2020) *poster*
- Bokyung Lee, Michael Lee, Pan Zhang, Alexander Tessier, Azam Khan., 2019
An Empirical Study of How Socio-Spatial Formations are influenced by Interior Elements and Displays in an Office Context. Proc. ACM Hum.-Comput. Interact. 3, CSCW, Article 58. / **Honorable Mention Award (Top 5%)**
- Bokyung Lee, Michael Lee, Alexander Tessier, Azam Khan., **Skeletonographer: Skeleton-based Digital Ethnography Tool**, ACM Computer Supported Cooperative Work and Social Computing (CSCW 2019) *demo*
- Alexander Tessier, Simon Breslav, Kean Walmsley, Michael Lee, Hali Larsen, Jacky Bibliowicz, Pan Zhang, Liviu-Mihai Calin, Bokyung Lee, Josh Cameron, Rhys Goldstein, and Azam Khan., **Occupancy Visualization towards Activity Recognition**, ACM International Workshop on Device-Free Human (DFSH 2019) *workshop*
- Bokyung Lee, Michael Lee, Alexander Tessier, Azam Khan., **Semantic Human Activity Annotation Tool Using Skeletonized Surveillance Videos**, ACM Pervasive and Ubiquitous Computing (Ubicomp 2019) *demo*
- Bokyung Lee, Taeil Jin, Sung-Hee Lee, Daniel Saakes., **SmartManikin: Virtual Humans with Agency for Design Tools**, ACM Human Factors in Computing Systems (CHI 2019) *full paper*
- Bokyung Lee, Sindy Wu, Maria Reyes, Daniel Saakes., **The Effect of Interruption Timings on Autonomous Height-Adjustable Desks that Responds to Task Changes**, ACM Human Factors in Computing Systems (CHI 2019) *full paper*
- Bokyung Lee, Joongi Shin, Hyoshin Bae, Daniel Saakes., **Interactive and Situated Guidelines to Help Users Design a Personal Desk that Fits Their Bodies**, ACM Designing Interactive Systems (DIS 2018) *full paper* 2018

Bokyung Lee, Jiwoo Hong, Jaeheung Surh, Daniel Saakes., Ori-mandu: Korean Dumpling into Whatever Shape You Want , ACM Designing Interactive Systems (DIS 2017) <i>full paper</i>	2017
Bokyung Lee, Gyeol Han, Jundong Park, Daniel Saakes., Consumer to Creator: How Households Buy Furniture to Inform Design and Fabrication Interfaces. , ACM Human Factors in Computing Systems (CHI 2017) <i>full paper</i>	
Bokyung Lee, Jiwoo Hong, Jaeheung Surh, Daniel Saakes., Ori-mandu: Korean Dumpling into Whatever Shape You Want , ACM Human Factors in Computing Systems (CHI 2017) <i>video showcase</i>	
Jundong Park, Bokyung Lee, Gyeol Han, Daniel Saakes., Two Mental Models of Non-Professional Design Process for Future Fabrication Interface. , <i>HCI Korea 2017</i> <i>full paper</i>	
Bokyung Lee, Minjoo Cho, Daniel Saakes., Posing and Acting as Input for Personalizing Furniture , ACM Nordic Conference on Human-Computer Interaction (NordiCHI 2016) <i>full paper</i>	2016
SeungRyoel Kim, Bokyung Lee, Daniel Saakes., Gesture-based Trafficator to Improve Driver to Traffic Communication. , <i>KSDS 2016</i> Fall 2016 <i>paper</i>	
Foong-Yi Chia, Bokyung Lee, Daniel Saakes., Collaboration in the Living Room or How Couples Design Together , ACM Nordic Conference on Human-Computer Interaction (NordiCHI 2016) <i>poster</i>	
Minjoo Cho, Bokyung Lee, Joonhee Min, Daniel Saakes., Sketching in Virtual Reality for Rapid and Situated Idea Generation , <i>KSDS 2015</i> Fall <i>paper</i>	2015
Bokyung Lee, Froukje Sleeswijk Visser, Daniel Saakes., Online User Reviews as a Design Resource , International Association of Societies of Design Research (IASDR 2015) <i>full paper</i>	
Shin H-S (Felix), Bokyung Lee, Daniel Saakes., TagRadar: Locating Objects Using a Smart Phone Accessory , ACM Pervasive and Ubiquitous Computing <i>Ubicomp/ISWC 2015</i> Demos	

INVITED TALKS

International Association of Societies of Design Research-Panel Talk Title: Design + Technology: Impact Design to Support COVID-19 Pandemic	Dec 2021
University of Virginia - Invited Talk Title: Digital-Physical Convergence: Converging the Use-Stage and the Design-stage	Nov 2021
University of Toronto - Invited Talk: Dynamics Graphics Project Lab Title: Future of Embodied Interactions in Digital Design Contexts	Mar 2021
HCI Korea Panel Talk: Panel for Future of Digital Fabrication Title: Not just helping you design easily, but help you design what you want.	Jan 2021
ID KAIST Ph.D. Colloquium Talk Doing a Ph.D. in HCI & Design Research	Jul 2020
Autodesk Research Talk Embodied Design Tools for Digital Fabrication	Nov 2018
KAIST CS374: Introduction to HCI Research Talk Design-driven HCI Research	Jun. 2018
HCI KAIST Research Talk Consumer to Creator: Understanding how people buy furniture to inform fabrication tools	Apr 2017

TEACHING EXPERIENCE

Design Research Paper Writing - Sungshin Women's University (special lecturer-June)	Spring 2023
Democratization of Design - Yeonsei University (special lecturer-April)	Spring 2021
Scientific Research Paper Writing - Yeonsei University (special lecturer-May)	Spring 2021
Digital Design Fabrication (teaching assistant)	Fall 2017
ID KAIST Academic Counselor	Spring 2017

Digital Design Fabrication (teaching assistant)	Fall 2016
Integrated Design – Undergraduate graduation project	Spring 2016
Digital Design Fabrication (teaching assistant)	Fall 2015
Space Design (teaching assistant)	Spring 2015
Introduction to Industrial Design (teaching assistant)	Spring 2014

PROJECT EXPERIENCE

Future Home Robots for Samsung <i>participating researcher</i>	2022-2023
Video Media Tool and Privacy <i>project lead</i>	2021-2022
Living Lab and Digital Twins <i>participating researcher</i>	2020-current
Factory OS: Knowledge-capture and insight <i>participating researcher</i>	2020-current
OccSim: Human Simulation in Buildings <i>project lead</i>	2020-current
Vision-based Social Interaction Analysis for Human-Centered Architecture <i>project lead</i>	2020-current
Design Toolkits for Everybody with VR/AR Technology <i>project manager</i>	2015-2018
AI/AR Personal Health Recommendations for Mobile Computing at Home <i>project lead</i>	2018
Gesture-based Trafficator to Enhance Human-Automobile Interaction <i>teaching assistant</i>	2017
Augmented Reality Interface for the Internet of Things <i>participating researcher</i>	2016-2018
An Interactive Tabletop to Support Surveillance Scenarios with UAVs <i>participating researcher</i>	2015
Design for the Next Generation UX-Oriented Mobile Software Platform <i>researcher</i>	2013

LEADERSHIP ACTIVITIES

Ph.D. student representative. Industrial Design department, KAIST	Sep 2016 - Aug 2017
Student organizing lead, Design 3.0 Forum	Aug 2017
Student organizing lead, ID KAIST 30th anniversary event	Aug 2017
K2 KAIST-Kyushu University Workshop	Feb 2017

ACADEMIC SERVICE

Academic Review: ACM CHI	2023
TEI 2022 Web Chair	2022
Academic Review: ACM CHI	
Academic Review: ACM CHI, Journal of Architecture-Design + Technology, IASDR	2021
Academic Review: ACM CHI, ACM Siggraph E-tech, ACM DIS, ACM IDC	2020
Academic Review: ACM CHI, ACM Siggraph Asia	2019
Academic Review: ACM CHI, ACM CHI Play, ACM CSCW, ACM DIS, ACM TEI, ACM UIST	2018
Academic Review: ACM DIS, ACM IDC, ACM C&C	2017

SKILLS

Languages: Korean (Native), English (fluent)
Programming: C#, Python, Javascript
Tools: Unity, Adobe Illustrator, Adobe Photoshop, Adobe Premier, Adobe Indesign, Autodesk Fushion 360, Autodesk Revit, Autodesk Dynamo
Document Creation: Microsoft Office Suite, LaTeX
Research Methods: design research methods (contextual inquiry, FGI, situated interview, gesture elicitation study), quantitative analysis (SPSS, Python), data visualization, mixed-methods