












# Bogoan Kim, Ph.D.









RESEARCH INTEREST	My research centers on HCI and digital health. I design and develop data-driven interventions that promote well-being by leveraging mobile and VR technologies for holistic health support. Emphasizing the interplay between technological and social systems, my work adopts adaptive user-centered design and evidence-based digital transformation to address the diverse needs of socio-technical ecosystems.	
EDUCATION	<b>Hanyang University</b> , Seoul, Korea	Feb 2025
	<ul style="list-style-type: none"><li>• <i>Ph.D. in Artificial Intelligence</i><ul style="list-style-type: none"><li>– Dissertation: BalancePath: AI-VR Framework for Personalized Adaptive System</li><li>– Advisor: Prof. Kyungsik Han</li></ul></li></ul>	
	<b>University of Minnesota – Twin Cities</b> , MN, USA	May 2017
	<ul style="list-style-type: none"><li>• <i>B.A. in Statistics</i><ul style="list-style-type: none"><li>– Thesis: Moderate-to-Vigorous Physical Activity and BP in Hypertensive Adults</li><li>– Advisor: Prof. Barbara Kuzmak</li></ul></li></ul>	
POSITIONS	<b>KAIST</b> , Dajeon, Korea	May 2025 – Present
	<ul style="list-style-type: none"><li>• <i>Postdoctoral Research Associate, School of Computing</i><ul style="list-style-type: none"><li>– Topic: LLM-Based Personalized Discomfort Prediction Model Using Multimodal Data</li><li>– Advisors: Profs. Hwajung Hong and Uichin Lee</li></ul></li></ul>	
	<b>Hanyang University</b> , Seoul, Korea	Mar 2025 – Apr 2025
	<ul style="list-style-type: none"><li>• <i>Postdoctoral Research Associate, Department of Artificial Intelligence</i><ul style="list-style-type: none"><li>– Topic: Clinically-Grounded Digital Transformation Framework</li><li>– Advisor: Prof. Kyungsik Han</li></ul></li></ul>	
	<b>The Pennsylvania State University</b> , PA, USA	Jan 2020 – Jun 2020
	<ul style="list-style-type: none"><li>• <i>Visiting Scholar, College of IST</i><ul style="list-style-type: none"><li>– Topic: Human Factors in Fake News Detection and Echo Chamber Mitigation</li><li>– Advisors: Profs. Dongwon Lee and Aiping Xiong</li></ul></li></ul>	
AWARDS & HONORS	<b>Indiana University</b> , IN, USA	Jun 2019 – Sep 2019
	<ul style="list-style-type: none"><li>• <i>Visiting Scholar, Luddy School of Informatics</i><ul style="list-style-type: none"><li>– Topic: RCT on Mobile Game to Promote Physical Activity in Autistic Adults</li><li>– Advisors: Profs. Patrick C. Shih and Georgia C. Frey</li></ul></li></ul>	
	<b>Jang Young Sil Postdoctoral Fellowship</b>	2025
	<b>HYU Postdoctoral Research Fellowship</b>	2025
	<b>NRF of Korea Ph.D. Fellowship</b>	2023
	<ul style="list-style-type: none"><li>• Granted 40M KRW (equivalent to 35,000 USD) stipend for 2-year Ph.D. studies</li></ul>	
	<b>UIST 2023 Travel Grant</b> for Doctoral Symposium	2023
	<b>Gary Marsden Travel Award</b> for CHI 2023	2023
	<b>SK Creative Challenge Finalist</b>	2022
	<b>IITP Best Global Research Team Award</b>	2021
	<b>IITP High-Potential Individuals Global Training Fellowship</b>	2020
	<b>Indiana University Global Talent Attraction Program (GTAP) Fellowship</b>	2019
	<b>Honors on the Dean’s List</b>	2011, 2012, 2015
	<b>Global Excellence Scholarship</b> (merit-based; 4,210 USD)	2011
	<b>Special Recognitions for Outstanding Reviews</b> <ul style="list-style-type: none"><li>• CHI 2024, CHI 2025</li></ul>	
	<b>Domestic Conference Awards</b> <ul style="list-style-type: none"><li>• Best Paper Awards: KDMS (2024: Grand Paper, Best Paper)</li><li>• Best Presentation Award: KIISE KCC (2024)</li></ul>	

**Preprint and Under-Review Manuscripts** (\* indicates equal contributions)

- [u.2] M Kim, B Kim, K Han. (*Under Review at One of the Top-Tier CS Conferences*)
- [u.1] B Kim, D Jeong, Y Choi, K Han. (*Under Review at One of the Top-Tier CS Conferences*)

**Refereed International Conference and Journal Papers** (\* indicates equal contributions)

- [p.14] Enhancing Mindfulness-Based Cognitive Therapy in a Virtual Reality: A Prospective Interventional Study  
{B Kim\*, D Jeong\*}, Y Choi, H Kim, and K Han  
**Scientific Reports** (SCIE Journal 2025, Q1)
- [p.13] “I Don’t Know Why I Should Use This App”: Holistic Analysis on User Engagement Challenges in Mobile Mental Health  
{S Jin\*, B Kim\*}, and K Han  
**CHI 2025** (*ACM CHI Conference on Human Factors in Computing Systems*)  
Links : [PDF](#)
- [p.12] Narrating Routines through Game Dynamics: Impact of a Gamified Routine Management App for Autistic Individuals  
B Kim, D Jeong, H Hong, and K Han  
**CHI 2024** (*ACM CHI Conference on Human Factors in Computing Systems*)  
Links : [PDF](#) [10-min Talk](#) [Video](#) 
- [p.11] Promoting Self-Efficacy of Individuals with Autism in Practicing Social Skills in the Workplace Using Virtual Reality and Physiological Sensors: A Feasibility Study  
SI Kim, S Jang, T Kim, B Kim, D Jeong, T Noh, M Jeong, HJ Yoo, K Han, H Hong, and JG Kim  
**JMIR Formative Research** (SCOPUS Journal 2024)  
Links : [PDF](#) [Video](#)
- [p.10] V-DAT: Supporting Self-Awareness for Autistic People from Multimodal VR Sensor Data  
B Kim, D Jeong, JG Kim, H Hong, and K Han  
**UIST 2023** (*ACM Symposium on User Interface Software and Technology*)  
Links : [PDF](#) [10-min Talk](#) [Video](#)
- [p.9] RoutineAid: Externalizing Key Design Elements to Support Daily Routines of Individuals with Autism  
B Kim, SI Kim, S Park, HJ Yoo, H Hong, and K Han  
**CHI 2023** (*ACM CHI Conference on Human Factors in Computing Systems*)  
Links : [PDF](#) [10-min Talk](#) [Video](#) 
- [p.8] VISTA: User-Centered VR Training System for Effectively Deriving Characteristics of Autistic Individuals  
B Kim, D Jeong, M Jeong, T Noh, SI Kim, T Kim, S Jang, HJ Yoo, JG Kim, H Hong, and K Han  
**VRST 2022** (*The ACM Symposium on Virtual Reality Software and Technology*)  
Links : [PDF](#) [10-min Talk](#) [Video](#) [Media](#)
- [p.7] A Systematic Review on Fake News Research through the Lens of News Creation and Consumption: Research Efforts, Challenges, and Future Directions  
B Kim, A Xiong, D Lee, and K Han  
**PLoS ONE** (SCIE Journal 2021, Q1)  
Links : [PDF](#)
- [p.6] ChamberBreaker: Mitigating the Echo Chamber Effect and Supporting Information Hygiene through a Gamified Inoculation System  
Y Jeon, B Kim, A Xiong, D Lee, and K Han  
**CSCW 2021** (*ACM Conference on Computer-Supported Cooperative Work and Social Computing*)  
Links : [PDF](#) [Media](#)
- [p.5] Usability Assessment of a Mobile Health Intervention for Increasing Physical Activity in Autistic Adults  
D Lee, GC Frey, A Min, B Kim, D Cothran, S Bellini, K Han, and PC Shih  
**Health Informatics Journal** (SCIE Journal 2020, Q2)  
Links : [PDF](#)

- [p.4] PuzzleWalk: A Theory-Driven Iterative Design Inquiry of a Mobile Game for Promoting Physical Activity in Autistic Adults  
B Kim, D Lee, A Min, S Paik, GC Frey, S Bellini, K Han, and PC Shih  
**PLoS ONE** (SCIE Journal 2020, Q1)  
 Links : 
- [p.3] No More One Liners: Bringing Context into Emoji Recommendations  
 J-G Kim, T Gong, B Kim, J Park, W Kim, E Huang, K Han, J Kim, JG Ko, and S-J Lee  
**ACM Transactions on Social Computing** 2020  
 Links : 
- [p.2] ATM: The Effectiveness of Self-Regulation on Time Management through a Smartphone Application  
B Kim, S-W Lee, H Hong, and K Han  
**IEEE Access** (SCIE Journal 2019, Q1)  
 Links : 
- [p.1] Photos Don't Have Me, But How Do You Know Me?: Analyzing and Predicting Users on Instagram  
 K Han, Y Jo, Y Jeon, B Kim, J Song, and S-W Kim  
**UMAP 2018** (*ACM Conference on User Modeling, Adaptation and Personalization*)  
 Links : 

#### International Conference Posters / WiP Abstracts (Lightly Peer Reviewed)

- [w.9] Early Prediction of Cybersickness in Virtual Reality Using a LLM for Multimodal Time Series Data  
 Y Choi, D Jeong, B Kim, and K Han  
**UbiComp 2024** (*ACM Conference on Interactive, Mobile, Wearable and Ubiquitous Technologies*)  
 Mentoring, Poster presentation
- [w.8] Supporting Independence of Autistic Adults through Mobile and Virtual Reality Technologies  
B Kim  
**UIST 2023** (*ACM Symposium on User Interface Software and Technology*)  
 Doctoral Symposium
- [w.7] Objectively Measured Physical Activity and Sedentary Time in Autistic Adults  
 D Lee, PC Shih, B Kim, K Han, A Min, D Cothran, S Bellini, and GC Frey  
**MSSE 2020** (*Medicine and Science in Sports and Exercise*)  
 WiP abstract
- [w.6] A Study on the Text-Based Characteristics of A Autistic Individuals through Social Media Data Analysis  
 J Han, B Kim, and K Han  
**ICNGC 2020** (*The International Conference on Next Generation Computing*)  
 Mentoring, Oral presentation
- [w.5] FashionQ: An Interactive Tool for Analyzing Fashion Style Trend with Quantitative Criteria  
 Y Jeon, S Jin, B Kim, and K Han  
**CHI LBW 2020** (*ACM Conference on Human Factors in Computing Systems*)  
 Poster presentation
- [w.4] Ecological Momentary Assessment of Physical Activity and Anxiety in Autistic Adults  
 D Lee, D Cothran, S Bellini, PC Shih, K Han, B Kim, A Min, S Paik, and GC Frey  
**INSAR 2020** (*International Society for Autism Research*)  
 WiP abstract
- [w.3] Bringing Context into Emoji Recommendations  
 J-G Kim, T Gong, B Kim, J Park, E Huang, W Kim, K Han, J Kim, JG Ko, and S-J Lee  
**MobiSys 2019** (*ACM Conference on Mobile Systems, Applications, and Services*)  
 Poster presentation
- [w.2] Iterative Design and Usability of Gamified Application for Adults with Autism Spectrum Disorder  
 S Paik, B Kim, and K Han  
**ICNGC 2019** (*The International Conference on Next Generation Computing*)

Mentoring, Oral presentation

- [w.1] Leveraging Mobile Technology to Support Goal Setting and Strategies of College Students  
B Kim, S Rhim, K Han, and S-W Lee  
**UbiComp 2018** (*ACM Conference on Interactive, Mobile, Wearable and Ubiquitous Technologies*)  
Poster presentation

**Domestic Journal and Short Papers (In Korean, Lightly Peer Reviewed)**

- [k.15] VR-Based Mindfulness for Depression Alleviation: Focusing on Content Development and Data Analysis  
Y Choi, B Kim, D Jeong, H Kim and K Han  
**HCIK 2025** (*HCI Society of Korea*)  
Mentoring, Oral presentation
- [k.14] Development of a Personalized Early Prediction Model for Cybersickness in Virtual Reality  
Y Choi, D Jeong, B Kim, and K Han  
**Journal of KTCP** (*KIISE Transactions on Computing Practices, 2024*)  
Mentoring, KCI Journal Submission
- [k.13] Development of a Personalized Early Prediction Model for Cybersickness in Virtual Reality Using LLM  
Y Choi, D Jeong, B Kim, and K Han  
**KDMS 2024** (*Korea Data Mining Society*)  
Mentoring, Poster presentation  
🏆 Grand Paper Award
- [k.12] A Study on the Effectiveness of VR-Based Mindfulness-Based Cognitive Therapy Using Multimodal Data  
D Jeong, B Kim, Y Choi, and K Han  
**KDMS 2024** (*Korea Data Mining Society*)  
Mentoring, Poster presentation  
🏆 Best Paper Award
- [k.11] Predicting Cybersickness in Virtual Reality through a Long-term Time Series Forecasting Model  
Y Choi, D Jeong, B Kim, and K Han  
**KCC 2024** (*Korea Computer Congress*)  
Mentoring, Poster presentation  
🏆 Best Presentation Award
- [k.10] CoFashion: An AI Web Interface Enhancing Creative Thinking for Fashion Designers  
M Joo, M Kim, B Kim, and K Han  
**KSC 2023** (*Korea Software Congress*)  
Mentoring, Oral presentation
- [k.9] A Study on Mobile Game Design to Support Daily Routines of Individuals with Autism  
B Kim, S-I Kim, S Park, HJ Yoo, H Hong, and K Han  
**Journal of the HCI Society of Korea** (*HCI Society of Korea, 2022*)  
KCI Journal Submission
- [k.8] Mobile Game Design to Promote Daily Routines for Autistic Adolescents  
B Kim  
**HCIK 2021** (*HCI Society of Korea*)  
Doctoral Consortium
- [k.7] A Text-Based Characteristic Analysis of Autistic People through Social Media Data Analysis  
J Han, B Kim, and K Han  
**HCIK 2021** (*HCI Society of Korea*)  
Mentoring, Poster presentation
- [k.6] A Case Study on the Purpose and Patterns of Social Media Use in Autistic People  
Y Lee, B Kim, and K Han  
**HCIK 2021** (*HCI Society of Korea*)  
Mentoring, Oral presentation

- [k.5] A Study on the Quantitative Criteria-Based Fashion Style: Focusing on Expert Knowledge and Deep Learning Modeling  
Y Jeon, S Jin, B Kim, S Paik, and K Han  
**HCIK 2020** (*HCI Society of Korea*)  
Oral presentation
- [k.4] Development and Effectiveness of a Smartphone Application for Self-Regulation of College Students  
B Kim and K Han  
**HCIK 2019** (*HCI Society of Korea*)  
Poster presentation
- [k.3] Analyzing Opportune Moments with Smartphone Sensor Data  
B Kim, S Rhim, and K Han  
**HCIK 2019** (*HCI Society of Korea*)  
Oral presentation
- [k.2] Image-based Age and Gender Prediction Modeling Excluding Person-related Information  
Y Jo, Y Jeon, B Kim, and K Han  
**KINGC 2018** (*Korean Institute of Next Generation Computing*)  
Poster presentation
- [k.1] A Study on Goal Setting and Achievement Strategies of College Students  
S Rhim, B Kim, S-W Lee, and K Han  
**KICS 2018** (*Korean Institute of Communications and Information Sciences*)  
Poster presentation

#### PATENTS & SOFTWARE

##### Granted Patent

- A Mobile System for Routine Management in Autistic Individuals  
Registration Number: **KR10-2729263** Oct 2024

##### Filed Patents

- VR Data Analysis Tool to Support Self-Awareness for Autistic Individuals  
Application Number: **KR10-2023-0116955** Aug 2023
- VR-based Interactive Social Skills Training System for Autistic Individuals  
Application Number: **KR10-2023-0116954** Aug 2023

##### Registered Software

- VR-based Dashboard for Clinical Support and Patient Monitoring in Depression Care  
Registration Number: **C-2024-034698** Oct 2024

#### TEACHING EXPERIENCE

##### Instructor / Co-lecturer (Taught all courses in English)

- Computational Social Science (**Co-lecturer**) Spring 2025
- Human-AI Interaction (**Instructor**) Fall 2024
- Human-Computer Interaction (**Instructor / Teaching Fellow**) Fall 2023
- Introduction to Software Design (**Co-lecturer**) Spring 2023
- Creative Software Design (**Co-lecturer**) Fall 2022
- Introduction to Software Design (**Co-lecturer**) Spring 2022
- Creative Software Design (**Co-lecturer**) Fall 2021
- Data Structures and Practice (**Co-lecturer**) Spring 2021
- Data Structures and Practice (**Co-lecturer**) Spring 2019

##### Senior Teaching Assistant (Developed and led lab sessions, created materials)

- Algorithms Fall 2020
- Introduction to AI Programming Language Spring 2020
- AI Intensive Class Fall 2019

##### Teaching Assistant

	<ul style="list-style-type: none"> <li>• The Basics of Data Analytics</li> </ul>	Fall 2018
	<ul style="list-style-type: none"> <li>• The Basics of Data Analytics</li> </ul>	Spring 2018
INVITED TALKS	<b>Omnibus Lecture Series on Computational Social Science</b> , Seoul, Korea <ul style="list-style-type: none"> <li>• Host: Department of Data Science @ Hanyang University</li> <li>• Topic: User-centered Digital Healthcare</li> </ul>	Mar 2025
	<b>Computational Social Science Colloquium</b> , Seoul, Korea <ul style="list-style-type: none"> <li>• Host: Center for Computational Social Science @ Hanyang University</li> <li>• Topic: Sociotechnical Systems for People Who Are in Need</li> </ul>	May 2024
	<b>Top Conference Session</b> , Hongcheon, Korea <ul style="list-style-type: none"> <li>• Host: HCI Korea 2024</li> <li>• Topic: Impact of a Gamified Routine Management App for Autistic Adults</li> </ul>	Jan 2024
	<b>Top Conference Session</b> , Jeju, Korea <ul style="list-style-type: none"> <li>• Host: Korea Computer Congress (KCC) 2023</li> <li>• Topic: Externalizing Key Design Elements to Support Daily Routines of Autistic Adults</li> </ul>	Jun 2023
	<b>IITP Global Talent Program Workshop</b> , Seoul, Korea <ul style="list-style-type: none"> <li>• Host: Institute of Information &amp; Communications Technology Planning &amp; Evaluation (IITP)</li> <li>• Topic: Explainable Fake News Detection with Deep Learning and Human Factors</li> </ul>	Dec 2021
	<b>Global Talent Attraction Program Conference</b> , Bloomington, IN USA <ul style="list-style-type: none"> <li>• Host: Luddy School of Informatics, Computing, and Engineering @ Indiana University</li> <li>• Topic: Designing a Mobile Game to Promote Physical Activity in Autistic Adults</li> </ul>	Jun 2019
	<b>Global Challenge Program Symposium</b> , Tokyo, Japan <ul style="list-style-type: none"> <li>• Host: Environment and Information Studies @ Keio University</li> <li>• Topic: Effectiveness of a Smartphone App in Self-Regulating Time Management</li> </ul>	Jun 2018
ACADEMIC SERVICES	<b>Conference Reviewer</b> <ul style="list-style-type: none"> <li>• The Conference on Human Factors in Computing Systems (<b>CHI</b>)</li> <li>• The Conference on Interactive, Mobile, Wearable and Ubiquitous Technologies (<b>IMWUT</b>)</li> <li>• The Designing Interactive Systems Conference (<b>DIS</b>)</li> <li>• The Conference on Computer-Supported Cooperative Work &amp; Social Computing (<b>CSCW</b>)</li> <li>• The Conference on Information and Knowledge Management (<b>CIKM</b>)</li> <li>• The Symposium on Applied Computing (<b>SAC</b>)</li> </ul>	2019 - 2025 2019 - 2025 2025 2019 - 2024 2021 - 2023 2022
	<b>Journal Reviewer</b> <ul style="list-style-type: none"> <li>• JMIR Formative Research</li> <li>• The Nature Scientific Reports</li> <li>• The Taylor and Francis Interactive Learning Environments</li> </ul>	2025 2024 2023
	<b>Student Volunteer</b> <ul style="list-style-type: none"> <li>• The Conference on Mobile Systems, Applications, and Services (<b>MobiSys</b>)</li> </ul>	2019

## REFERENCES

- Kyungsik Han**, *Associate Professor* (Ph.D. Advisor)  
*Department of Data Science, Hanyang University*  
 kyungsikhan@hanyang.ac.kr
- Hwajung Hong**, *Professor* (Postdoc. Advisor)  
*Department of Industrial Design, KAIST*  
 hwajung@kaist.ac.kr
- Jennifer G. Kim**, *Assistant Professor* (Collaborator)  
*School of Interactive Computing, Georgia Institute of Technology*  
 jennifer.kim@cc.gatech.edu
- Dongwon Lee**, *Professor* (Collaborator)  
*College of IST, The Pennsylvania State University – University Park*  
 dongwon@psu.edu
- Patrick C. Shih**, *Associate Professor* (Collaborator)  
*Luddy School of Informatics, Indiana University – Bloomington*  
 patshih@indiana.edu
- Georgia C. Frey**, *Associate Professor* (Collaborator)  
*School of Public Health, Indiana University – Bloomington*  
 gfrey@indiana.edu
- Aiping Xiong**, *Associate Professor* (Collaborator)  
*College of IST, The Pennsylvania State University – University Park*  
 axx29@psu.edu
- Daehyoung Lee**, *Assistant Professor* (Collaborator)  
*Department of Health Behavior and Nutrition Sciences, University of Delaware*  
 dhlee@udel.edu