












Bogoan Kim, Ph.D.









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

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, Y-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

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