Seungwan Jin

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EDUCATION

Ph.D. in Artificial Intelligence **Sep. 2021 - Feb. 2026**
Hanyang University, Seoul, Republic of Korea
Advisor: Prof. Kyungsik Han

B.S. in Environmental Science **Mar. 2010 - Feb. 2014**
Konkuk University, Seoul, Republic of Korea

WORK EXPERIENCES

Postdoctoral Researcher / KAIST Jang Young Sil Fellow (Excellence Track) **Apr. 2026 - Present**
Interactive Computing Lab (IC Lab), School of Computing, KAIST
Advisor: Prof. Uichin Lee

The 8th Mechanized Infantry Division **Mar. 2014 - Jun. 2016**
Military Engineering
First Lieutenant / Honorable Discharge

RESEARCH INTERESTS

My research investigates how AI systems can model and support individual users over time in real-world contexts, with a particular focus on mental health and well-being. Building on a foundation in fine-grained multimodal representation learning, my current work develops LLM-based multi-agent frameworks and memory-augmented interactive agents for understanding longitudinal human behavior, addressing challenges of sparse supervision and distribution shift in sensor-based behavioral data. By integrating technical modeling with human-centered design, I aim to advance safe, aligned, and inclusive AI that meaningfully supports people in their everyday lives.

GRADUATE RESEARCH EXPERIENCE

Graduate Research Assistant **Sep. 2021 - Feb. 2026**
Hanyang Human-Centered Computing Lab at Dept. of Data Science
Advisor: Kyungsik Han

Visiting Scholar **Aug. 2019 - Feb. 2020**
Pennsylvania State University, University Park
Penn State Information, Knowledge, and Web (PIKE) Research Group
Mentor: Dongwon Lee

Graduate Research Assistant **Mar. 2019 - Aug. 2021**
Ajou Human-Computer-Interaction Lab at Dept. of Software and Computer Engineering
Advisor: Kyungsik Han

PUBLICATIONS

Books, Reports, and Handbooks

[b.1]. Yeajin Shin, Sangyeon Kang, Kyungsik Han, Haein Yeo, Misun Joo, **Seungwan Jin**, Sohyun Park, Junghyun Kim (2025). General-Purpose Artificial Intelligence (GPAI) Risk Management Framework.

International Conference and Journal Publications (* Equal Contribution)

[c.16]. **Seungwan Jin**, Taehyung Noh, Junghyun Kim, Uichin Lee, Kyungsik Han (2026). Dynamic Context Modeling for Longitudinal Mental Health Monitoring under Distribution Shift. *Advances in Neural Information Processing Systems* (**NeurIPS**).

[c.15]. Haein Yeo, **Seungwan Jin**, Taehyung Noh, Yejin Shin, Sangyeon Kang, Sangwoo Heo, Jiwon Chung, Hwarim Hyun, Kyungsik Han (2026). "Can LLMs Persuade Humans with Deception?": From a Deceptive Strategy Taxonomy to a Large-Scale Empirical Study. *ACM Conference on Human Factors in Computing Systems* (**CHI**).

[c.14]. Taehyung Noh, **Seungwan Jin**, Haein Yeo, Kyungsik Han (2026). TRIPLE: Theory-Driven Integration of Planned and Habitual Behaviors for LLM-based Personalization. *AAAI Conference on Artificial Intelligence* (**AAAI**). (Oral)

[c.13]. Taehyung Noh, **Seungwan Jin**, Haein Yeo, Kyungsik Han (2025). Externalizing Social-Cognitive Structures for User Modeling: Toward Theory-Driven Profiling with LLMs. *ACM International Conference on Information and Knowledge Management* (**CIKM**).

[c.12]. {**Seungwan Jin***, Bogoan Kim*}, Kyungsik Han (2025). "I Don't Know Why I Should Use This App": Holistic Analysis on User Engagement Challenges in Mobile Mental Health. *ACM Conference on Human Factors in Computing Systems* (**CHI**).

[c.11]. Haein Yeo, Taehyung Noh, **Seungwan Jin**, Kyungsik Han (2025). PADO: Personality-induced multi-Agents for Detecting OCEAN in human-generated texts. *International Conference on Computational Linguistics* (**COLING**). (Oral)

[c.10]. Someen Park, Jaehoon Kim, **Seungwan Jin**, Sohyun Park, Kyungsik Han (2024). PREDICT: Multi-Agent-based Debate Simulation for Generalized Hate Speech Detection. *Conference on Empirical Methods in Natural Language Processing* (**EMNLP**). (Oral)

[c.9]. Hoyoung Choi, **Seungwan Jin**, Kyungsik Han (2024). ICEv2: Interpretability, Comprehensiveness, and Explainability in Vision Transformer. *International Journal of Computer Vision* (**IJCV**) (Impact Factor = 11.6).

[c.8]. **Seungwan Jin**, Hoyoung Choi, Taehyung Noh, Kyungsik Han (2024). Integration of Global and Local Representations for Fine-grained Cross-modal Alignment. *European Conference on Computer Vision* (**ECCV**).

[c.7]. Jaehoon Kim, **Seungwan Jin**, Sohyun Park, Someen Park, Kyungsik Han (2024). Label-aware Hard Negative Sampling Strategies with Momentum Contrastive Learning for Implicit Hate Speech Detection. *Findings of the Association for Computational Linguistics* (**ACL**).

[c.6]. {Eunji Kim*, **Seungwan Jin***}, Kyungsik Han (2024). An Empirical Study on Social Anxiety in a Virtual Environment through Mediating Variables and Multiple Sensor Data. *ACM Conference on Computer-Supported Cooperative Work and Social Computing* (**CSCW**).

[c.5]. {Hoyoung Choi*, **Seungwan Jin***}, Kyungsik Han (2023). Adversarial Normalization: I Can visualize Everything (ICE). *IEEE/CVF Conference on Computer Vision and Pattern Recognition* (**CVPR**).

[c.4]. **Seungwan Jin**, Hoyoung Choi, Kyungsik Han (2022). AI-Augmented Art Psychotherapy through a Hierarchical Co-Attention Mechanism. *ACM International Conference on Information and Knowledge Management* (**CIKM**).

[c.3]. Youngseung Jeon, **Seungwan Jin**, Patrick C. Shih, Kyungsik Han (2021). FashionQ: An AI-Driven Creativity Support Tool for Facilitating Ideation in Fashion Design. *ACM Conference on Human Factors in Computing Systems* (**CHI**).

[c.2]. Youngseung Jeon, **Seungwan Jin**, Kyungsik Han (2021). FANCY: Human-centered, Deep Learning-based Framework for Fashion Style Analysis. *The Web Conference* (**WWW**).

[c.1]. **Seungwan Jin**, Hye Jin Jeon, Kyungsik Han (2021). News Information Verification System (NIVS) supporting Heuristic Information Processing and Building a Healthy News Diet. *International Conference on Next Generation Computing* (**ICNGC**).

International Conference and Poster/Demo/Workshop papers

[d.4]. Jingyoung Yoo, Somin Park, Suen Jang, **Seungwan Jin**, Uichin Lee (2026). Sonju: A Context-Aware Teachable Agent for Eliciting Older adults' Situated Knowledge. *ACM International Joint Conference on Pervasive and Ubiquitous Computing* (**UbiComp**).

[d.3]. Esther Kang, Youngji Koh, **Seungwan Jin**, Uichin Lee (2026). Designing Clinician Centered Explanations for Sensing-based Longitudinal Mental Health Monitoring. *ACM International Joint Conference on Pervasive and Ubiquitous Computing* (**UbiComp - Workshop**).

[d.2]. Muhammad Salman, Hyunkyu Jang, **Seungwan Jin**, Dayoung Jeong, Hoyoung Choi, Kyungsik Han, Youngtae Noh (2023). A Contactless and Non-Intrusive System for Driver's Stress Detection. *ACM International Joint Conference on Pervasive and Ubiquitous Computing* (**UbiComp**).

[d.1]. Youngseung Jeon, **Seungwan Jin**, Bogoan Kim, Kyungsik Han (2020). FashionQ: An Interactive Tool for Analyzing Fashion Style Trend with Quantitative Criteria. *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems* (**CHI**).

Domestic Conference and Journal Publications (In Korean)

[k.11]. Jaehoon Kim, **Seungwan Jin**, Sohyun Park, and Kyungsik Han (2026). Large Language Model-based In-context Learning Framework for Implicit Hate Speech Detection. *Journal of KIISE (Korean Institute of Information Scientists and Engineers), 53(12)* (KCI).

[k.10]. (Mentoring) Junghyun Kim, **Seungwan Jin**, Taehyung Noh, Kyungsik Han (2026). PersonaScope: Adaptive Persona-based Long-Term Depression Context Modeling. *Proceedings of HCI Korea* (**HCIK**).

[k.9]. (Mentoring) Jaehoon Kim, **Seungwan Jin**, Someen Park, Sohyun Park, Kyungsik Han (2024). LLM In-context Learning-based Strategies for Improving Implicit Hate Speech Detection. *Korea Data Mining Society* (**KDMS**). 🏆 Best Paper Award

[k.8]. (Mentoring) Haein Yeo, Taehyung Noh, **Seungwan Jin**, Kyungsik Han (2024). Comparative Evaluation of Multi-Agent Systems for Personality Prediction from Online Text. *Korea Data Mining Society* (**KDMS**). 🏆 Best Paper Award

[k.7]. (Mentoring) Taehyung Noh, **Seungwan Jin**, Haein Yeo, Kyungsik Han (2024). Generate multi-agent user profiles for personalized recommendations. *Korea Data Mining Society* (**KDMS**).

[k.6]. (Mentoring) Someen Park, Jaehoon Kim, Sohyun Park, **Seungwan Jin**, Kyungsik Han (2024). Patterns of Hate Speech in Online Communities: A Comparative Study of the 19th and 20th Presidential Elections. *Proceedings of HCI Korea* (**HCIK**).

[k.5]. (Mentoring) Eunji Kim, **Seungwan Jin**, Kyungsik Han (2023). A Study on the Social Anxiety Support in Virtual Environment through Mediating Factors and Sensor Data. *Korean Institute of Information Scientists and Engineers* (**KIISE**).

[k.4]. (Mentoring) Yaejin Chae, Eunji Kim, **Seungwan Jin**, Sohyun Park, Kyungsik Han (2023). Design and Development of a VR-based Tool for Social Anxiety Support. *Proceedings of HCI Korea* (**HCIK**).

[k.3]. (Mentoring) Hoyoung Choi, **Seungwan Jin**, Kyungsik Han (2022). A study on the application of an unsupervised learning-based AI model to support decision-making in the field of art psychotherapy. *Proceedings of HCI Korea* (**HCIK**).

[k.2]. (Mentoring) Hoyoung Choi, **Seungwan Jin**, Kyungsik Han (2021). A Study on the Application of Transformer-Based Image Classification Model for Projective Drawing Test. *Korean Institute of Next Generation Computing* (**KINGC**).

[k.1]. Youngseung Jeon, **Seungwan Jin**, Bogoan Kim, Seungwon Paik, Kyungsik Han (2020) A Study on Fashion Style Based on Quantitative Criteria: Expert Knowledge and Deep Learning-Driven Modeling. *Proceedings of HCI Korea* (**HCIK**).

UNDER REVIEW & PREPRINT

[w.9]. **Seungwan Jin**, Esther Kang, Sueun Jang, Hyunwoo J Kim, Uichin Lee (2027). *Under Review at CHI*

[w.8]. Sueun Jang, JinYoung Yoo, **Seungwan Jin**, Vedant Das Swain, Hwajung Hong, Oded Nov, Uichin Lee (2027). *Under Review at CHI*

[w.7]. Youngji Koh, Esther Kang, Gyuna Kim, **Seungwan Jin**, Hyunsoo Lee, Kyungsik Han, Uichin Lee (2027). *Under Review at CHI*

[w.6]. Beejin Son, **Seungwan Jin**, Kyungsik Han (2027). *Under Review at AAAI*

[w.5]. Hyesung Lee, Donggun Oh, **Seungwan Jin**, Yonggeon Lee, Youngtae Noh (2027). *Under Review at IMWUT*

[w.4]. {Haein Yeo*, **Seungwan Jin***}, Junghyun Kim, Kyungsik Han (2026). *Under Review at TACL*

[w.3]. Sohyun Park, Beejin Son, **Seungwan Jin**, Kyungsik Han (2026). *Under Review at Information Processing and Management*

[w.2]. Yejin Shin, Sangyeon Kang, Haein Yeo, **Seungwan Jin**, Kyungsik Han (2026). *Under Review at IJCAI*

[w.1]. **Seungwan Jin**, Hoyoung Choi, Kyungsik Han (2022) Human Decision-Making Through a Hierarchical Co-Attention Mechanism: The Case of Art Psychotherapy. *Available at SSRN 4200133*.

RESEARCH GRANTS

NRF Basic Research Program B (Inclusive Track) Sep. 2026 - Aug. 2029

- Role: Principal Investigator
- Awarded **180M KRW (≈ 130,000 USD)** in research funding over three years
- Supported by the National Research Foundation of Korea (NRF)
- Title: Mitigating Distribution Shift in Mental Health Prediction via Non-Parametric Multi-Agent Dynamic Context Modeling

Jang Young Sil Fellow (Excellence Track) Apr. 2026 - Dec. 2026

- Role: Principal Investigator
- Awarded **80M KRW (≈ 60,000 USD)** annual budget for independent postdoctoral research
- Supported by the Ministry of Science and ICT (MSIT) and KAIST
- Title: Development of a Multi-Agent-based Longitudinal Personalization Framework for User Mental Health Monitoring

NRF Ph.D. Fellowship Jun. 2021 - May. 2023

- Role: Principal Investigator
- Awarded **40M KRW (≈ 35,000 USD)** stipend for 2-year Ph.D. research
- Supported by National Research Foundation of Korea (NRF)
- Selected among nationwide STEM applicants (Top 300 in South Korea)
- Title: Research on Supporting Art Psychotherapy through Augmented Artificial Intelligence

AWARDS & HONORS

People's Choice Student Challenge Award 2026

ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp)

Best Paper Award 2025

Korea Data Mining Society (KDMS)

Best Paper Award 2024

Korea Data Mining Society (KDMS)

Best Global Research Team Award 2021

Korean Government (IITP)

PATENTS & SOFTWARE

Patents (Granted)

[p.7]. Development of a Deep Learning-Based CRLM (Cross-modal Representation Learning with Masked Image and Text Modeling) Model for Image-Text Retrieval. (registration number: KR 10-3021303, registration date: 2026/09/14)

[p.6]. Development of a Deep Learning-Based Stress Classification Model M2C (Multimodal Classification with 2-Stage Co-Attention) for Decision Support in Art Therapy. (registration number: KR 10-2952492, registration date: 2026/04/09)

[p.5]. Deep Learning-Based Style Classification Apparatus and Method Using Fashion Attributes. (registration number: KR 10-2366127, registration date: 2022/02/17)

Patents (Pending)

[p.4]. Dynamic Persona-Based Predictive System and Method for Personalized Long-Term Mental Health Monitoring. (application number: KR 10-2025-0102264, application date: 2025/07/28)

[p.3]. Context-aware Few-shot Sample and Explanation Reasoning for Improving Large Language Model based Implicit Hate Speech Detection with In-context Learning Methods. (application number: KR 10-2025-0011255, application date: 2025/01/24)

[p.2]. Contrastive Learning Method based on Hard Negative Sampling. (application number: KR 10-2024-0117136, application date: 2024/08/29)

[p.1]. Visualization Method for Vision Transformer-Based Models and Image Processing. (application number: KR 10-2023-0116387, application date: 2023/09/01)

Software

[s.1]. News Information Analysis System. (registration number: C-2020-041645, registration date: 2020/11/13)

TEACHING EXPERIENCE

Teaching Fellow

- Human-Computer Interaction (**In English**) Fall 2025

Co-lecturer

- Creative Software Design (**In English**) Fall 2023
- Introduction to Software Design (**In English**) Spring 2023
- Creative Software Design (**In English**) Fall 2022
- Introduction to Software Design (**In English**) Spring 2022
- Creative Software Design (**In English**) Fall 2021

Teaching Assistant (TA) / Mentor

- Data Structures and Practice (**TA, In Korean**) Spring 2021
- Extensive IT Project Training (**Mentor, In Korean**) Fall 2020
- Human Computer Interaction (**TA, In Korean**) Spring 2020

- The Basics of Data Analytics (**TA, In Korean**) Spring 2019

INVITED TALKS

Omnibus Lecture Series on Computational Social Science, Seoul, Korea Apr 2025
- Host: Department of Data Science @ Hanyang University
- Topic: Multimodal Learning and Social Science

Top Conference Session, Busan, Korea Dec 2023
- Host: Korea Computer Congress (KCC) 2023
- Topic: Explainability of Vision Transformers in Image Classification

Global Talent Program Workshop, Seoul, Korea Dec 2021
- Host: Institute of Information Communications Technology Planning Evaluation (IITP)
- Topic: Explainable Fake News Detection with Deep Learning and Human Factors

ACADEMIC SERVICES

Student Volunteer
- ACM CHI Conference on Human Factors in Computing Systems (CHI) 2020

Conference Reviewer
- ACM Conference on Human Factors in Computing Systems (CHI) 2027
- The Web Conference (WWW) 2027
- ACM Symposium on User Interface Software and Technology (UIST) 2026
- Conference on Neural Information Processing Systems (NeurIPS) 2026
- Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) 2026
- ACL Rolling Review - January, March, and May (ACL & EMNLP) 2026
- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) 2026
- IEEE International Conference on Data Science and Advanced Analytics (DSAA) 2025
- ACM Conference on Human Factors in Computing Systems (CHI LBW) 2024-2025
- ACM Conference on Human Factors in Computing Systems (CHI) 2024
- ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW) 2024

REFERENCES

Uichin Lee
Professor, KAIST *uclee@kaist.edu*
School of Computing

Kyungsik Han
Associate Professor, Hanyang University *kyungsikhan@hanyang.ac.kr*
Department of Artificial Intelligence

Dongwon Lee
Professor, Pennsylvania State University-University Park *dongwon@psu.edu*
College of Information Sciences and Technology

Youngtae Noh
Associate Professor, Hanyang University *youngtaenoh@hanyang.ac.kr*
Department of Data Science