

Yoon Kyung Lee, Ph.D.

Seoul National University

1 Gwanak-gu, Gwanak-ro, Seoul, Korea 08826

yoonee78@snu.ac.kr

yoonkyunglee.com | [LinkedIn](#) | [Twitter](#) | [Google Scholar](#)

Professional Profile

- **Senior Researcher**, Institute of Psychological Science, *Seoul National University* (2024 to present)
- **Adjunct Professor**, *Gachon University* (2025 to Present)
- **Social Science/Humanities Research Professional**, *University of Texas Austin*, (2023-2024)
- **Lecturer**, Cognitive Psychology, *Samsung Art and Design Institute*, (2022)

Education

- **Ph.D.**, Cognitive Psychology (Minor in Quantitative Psychology), *Seoul National University, Korea* (2024)
 - Dissertation Title: “Empathic AI: A Multidisciplinary Approach to Computational Empathy for Understanding and Enhancing Human-AI Interaction” (Advisor: Prof. [Sowon Hahn](#), Committee: Professors [Cheongtag Kim](#), [Joonhwan Lee](#), [Jiook Cha](#), and [Jeh-Kwang Ryu](#))
- **Visiting Researcher**, Department of Psychology, *U of Texas at Austin, US* (2023-2024) (PI: Prof. [Desmond Ong](#))
- **M.A.**, Cognitive Psychology, *Seoul National University, Korea* (2018)
 - Thesis Title: “Effects of SNS on Social and Emotional Well-being of Older Adults in Korea”
- **B.S.**, in Psychology, *The University of Iowa, US* (2015) (Advisor: Prof. [Bob McMurray](#))

Research Interests

AI Empathy, Affective Modeling/Computing, Human-Robot Interaction, Human Factors, Applied Psychology,

Professional Academic Experience

Seoul National University (Postdoc)

- **Co-PI**
 - Development of a Social Competence Enhancement Model for Korean Smart-Aging. *National Research Foundation of Korea's Humanities and Social Sciences Collaborative Research Program (International)*. (2025-2028). PI: Sowon Hahn, Ph.D., Co-PI: Jonathan Gratch, Ph.D. (USC).

Barnard College at Columbia University

- **Co-organizer and Instructor**, “Generative AI and Psychology: Transform Your Creative Ideas into User-friendly Mobile Application Design”, *Vagelos Computational Science Center (CSC) Workshop at Barnard College at Columbia University*. (Nov, 2024)

University of Texas at Austin

- **Project Lead**, “Large Language Models and Digital Empathy”, *Collaboration with AI, Cognition, and the Economy (AICE) and Human Understanding and Empathy Group (HUE), Microsoft Research at Redmond*. (2023-2024)

Seoul National University (Ph.D. Candidate)

- **Project Lead,**
 - Self-aware and Empathetic Conversational Agent based on Persona. *Smilegate.AI*. (2022)
 - Development of Educational VR Program to Promote Empathy: Increasing Cooperation and Prosocial Behavior through Immersive VR Experience. *Seoul National University Faculty of Liberal Education*. (2022-2023)
 - AI Data Voucher, *Korean Data Agency, Ministry of Science and ICT Affiliation*, 2021
 - AI-based Online Personal Psychological Monitoring & Management System. *Seoul Business Agency*, (2021)
 - Development of an AI-based Service Platform for Psychological Self-Test and Management. *Korean Ministry of SMEs and Startups*, (2019-2020)
 - Development of Immersive Tourism Technology Utilizing 4D Technology and Affective Modeling, *Korea Creative Content Agency*, (2018-2019)
- **Co-organizer, Panelist, and Presenter,**
 - “Robot Learning Done Right: Responsibly Developing Foundation Models for Robotics” (CoRL, Sept. 2025). - *workshop on ethics of foundation models with panelists from SNU, University of Cambridge, Google DeepMind, Lund University, and United Nations*.
 - “LLM for Ro-Man Age”, *Workshop at the 33rd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2024)* [[web](#)] - *first workshop on LLM and HRI at RoMAN conference with panelists from Tokyo Tech, Cambridge, KTH, Lund University, SNU, and OpenAI*
- **Reviewer,**
 - Cognitive Science Society (CogSci), PRESENCE: Virtual and Augmented Reality (Ad-hoc), Korean Journal of Cognitive Science
- **Meetup Organizer,**
 - “Human-AI Interaction & Computational Psychology”, *Cognitive Science Society*. [[2022](#)] [[2023](#)]
- **Graduate Research Supervisor of Undergraduate Thesis,**
 - “[From Bimodal to Multimodal: Augmented MELD for Emotion Recognition in Conversations](#)” (Jisang Park, 2022) (*Currently Post-Bacc. Researcher at KAIST Robotics Lab*).
 - “[Mental Healthcare Chatbot Using Music Recommendation System for Emotion-based Conversations](#)” (Jung Lee, 2022).
- **Instructor,**
 - “Prompt Engineering 101: Hands-on Workshop with Large Language Models”, *Dept. of Psychology & Institute of Psychological Science, SNU* (2023).
 - “Natural Language Processing (NLP) Workshop”, *Dept. of Psychology, SNU* (2022)
 - “Introduction to Python, Self-Paced Learning & Tutoring (SPLIT) Program”, *Dept. of Engineering, SNU* (2019) [[materials](#)]
- **Teaching Assistant,**
 - Psychology and Artificial Intelligence, *Korean Mass Open Online Course (K-MOOC), Ministry of Education in Korea*, 2019-2024 [[link](#)]
 - Introduction to Psychology, *Dept. of Psychology, SNU* (2016-2018)
- **Graduate Coordinator,**
 - Brain, Mind, and Behavior Interdepartmental Program and SONA System (Research Participant Pool Management), *Dept. of Psychology, SNU* (2017-2018)

University of Iowa

- **Research Assistant**
 - Mechanisms of Audio-Visual Categorization Laboratory (Supervisor: [Prof. Bob McMurray](#)), *University of Iowa*, USA (2013-2015)
 - Conducted an independent project speech categorization of Korean words by English native speakers using LPC synthesis of phoneme and eye-tracking methods (EyeLink II and 1000 plus)
 - Child Decision Making Laboratory (Supervisors: [Prof. Irwin Levin](#) & Elaine Bossard), *University of Iowa*, USA (2013)

Selected Publications and Peer-reviewed Conference Presentations

- **Lee, YK.**, Suh, J., Zhan, H., Li, J.J., & Ong, D.C. (2024). Large Language Models Produce Responses Perceived to be Empathic. *The IEEE 12th International Conference on Affective Computing and Intelligent Interaction (ACII 2024) - Oral Talk* [[pdf](#)] [[Microsoft](#)]
- Zhan, H., Zheng, A., **Lee, YK.**, Suh, J., Li, J.J., & Ong, D.C. (2024). Large Language Models are Capable of Offering Cognitive Reappraisal, if Guided. *1st Conference on Language Modeling (COLM 2024)* [[pdf](#)] [[Microsoft](#)]
- **Lee, YK.**, Park, Y., & Hahn, S. (2024). A User Study on Age-related Variances in the Perceived Emotional Alignment of Generative AIs. Accepted. *Journal of Ergonomics Society of Korea*.
- **Lee, YK.**, Shin, G., You, J., Suh, B., Yun, M., & Hahn, S. (2024). Enhancing Exhibition Experience by Visualizing Visitor Emotion Using Digital Media Art and Artificial Intelligence. *22nd Triennial Congress of the International Ergonomics Association (IEA 2024)*, Oral Talk. (Springer Series in Design and Innovation, *In Press*)
- **Lee, YK.**, Park, Y., Lee, S., & Hahn, S. (2024). Evaluating the Perceived Usefulness and Empathy in Fitness Coaching Feedback Generated by Large Language Models. Workshop Work-in-Progress Presentation at *Workshop at the 33rd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2024)*.
- **Lee, YK.**, Lee, I., Shin, M., Bae, S., & Hahn, S. (2024). Enhancing Empathic Reasoning of Large Language Models Based on Psychotherapy Models for AI-assisted Social Support. *Korean Journal of Cognitive Science*, 35(1), 23-48. [[pdf](#)]
 - (first appeared as “**Lee, YK.**, Lee, I., Shin, M., Bae, S., & Hahn, S. (2023). Chain of Empathy: Enhancing Empathetic Response of Large Language Models Based on Psychotherapy Models. *arXiv preprint arXiv:2311.04915*.” in [preprint](#))
- Bae, S., **Lee, YK.**, Lee, J., Kim, J., Jeon, H., Lim, S., Kim, B., & Hahn, S. (2024). Enhancing Empathy in Virtual Reality: An Embodied Approach to Mindset Modulation. *arXiv preprint*. [[pdf](#)]
- **Lee YK.**, Jung, Y., Kang, K., & Hahn, S. (2023). Developing Social Robots with Empathetic Non-Verbal Cues Using Large Language Models. Late Breaking Report for presentation at the *32nd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2023)*. [[pdf](#)]
- Bae, S., **Lee, YK.**, Lee, J., Kim, J., Jeon, H., Lim, S., Kim, B., & Hahn, S. (2024). Enhancing Empathy in Virtual Reality: An Embodied Approach to Mindset Modulation. *arXiv preprint*. [[pdf](#)]
- **Lee YK.**, Park, Y., Shin, M., & Hahn, S. (2023). Effect of Factual and Empathetic Feedback Styles in Robotic Fitness Coaching on Exercise Behavior Change. Late Breaking Report for presentation at the *32nd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2023)*.

- **Lee, YK.,** Park, Y. H., & Hahn, S. (2023). A Portrait of Emotion: Empowering Self-Expression through AI-Generated Art. *Proceedings of the Annual Meeting of the Cognitive Science Society (CogSci 2023)*. arXiv preprint arXiv:2304.13324. [[pdf](#)]
- Bae, S., **Lee, YK.,** & Hahn, S. (2023). Friendly-Bot: The Impact of Chatbot Appearance and Relationship Style on User Trust. In *Proceedings of the Annual Meeting of the Cognitive Science Society (CogSci 2023)* (Vol. 45, No. 45). [[pdf](#)]
- Kim, J., Jung, Y., **Lee, YK.,** & Hahn, S. (2023). Relationship Between Perspective-Taking Ability and Psychological and Emotional Characteristics Observed in a Large Emotion Diary Dataset: A Cluster Analysis. *Korean Journal of Health Psychology*, 28(1), 1-25.
- **Lee, YK** & Cho, WI., Bae, S., Choi, H., Park, J., Kim, N., & Hahn, S. (2022). “Feels like I’ve Known You Forever”: Empathy and Self-Awareness in Human Open-Domain Dialogs. *Cognitive Science Society (CogSci 2022)*. [[pdf](#)] [[abstract](#)]
- Cho, WI* & **Lee, YK***, Bae, S., Kim, JW., Park, SA., Kim, MS., Hahn, S., & Kim, N. (2022). “When Crowd Meets Persona: Creating a Large-Scale Open-Domain Persona Dialogue Corpus. 2022 Tenth AAAI Conference on Human Computation and Crowdsourcing (Work-in-Progress Track) (HCOMP 2022). [[pdf](#)] *equal contribution
- Hong, J., Gu, J., **Lee, YK.,** Hahn, S. (2022). Fishing Free-Riders using Altruism: Zero-Sum Fitness Competition on Prey-Predator System. *Cognitive Science Society (CogSci 2022)*. [[pdf](#)]
- **Lee, YK.,** Jung, YW., Lee, I., Park, JE., & Hahn, S. (2021). Building a Psychological Ground Truth Dataset with Empathy and Theory-of-Mind During the COVID-19 Pandemic. *Cognitive Science Society (CogSci 2021)*. [[pdf](#)]
- **Lee, YK.,** Lee, I., Park, J. E., Jung, Y., Kim, J., & Hahn, S. (2021). A Computational Approach to Measure Empathy and Theory-of-Mind from Written Texts. *arXiv preprint arXiv:2108.11810*. [[pdf](#)]
- Jung, YW., **Lee, YK.,** & Hahn, S. (2021). Web-scraping the Expression of Loneliness during COVID-19. *Cognitive Science Society (CogSci 2021)*. [[pdf](#)]
- Park, JE., **Lee, YK.,** & Hahn, S. (2021). Racial Bias in Emotion Inference: An Experimental Study Using a Word Embedding Method. *Cognitive Science Society (CogSci 2021)*. [[pdf](#)]
- Lee, I., **Lee, YK.,** & Hahn, S. (2021). Understanding Emotional Information from Images and Texts: A Cross-Cultural Study. *HCI International 2021 (HCII 2021)*, Accepted.
- Kim K*, & **Lee, YK***, Ahn, H., Hahn, S., & Song, O. (2020). Pedestrian Intention Prediction for Autonomous Driving Using a Multiple Stakeholder Perspective Model. *2020 IEEE/RISJ International Conference on Intelligent Robots and Systems (IROS 2020)*. [[pdf](#)]
- **Lee, YK.,** Rhee, YE., Ryu JK., & Hahn, S. (2020). Gentlemen on the Road: Understanding How Pedestrians Interpret Yielding Behavior of Autonomous Vehicles using Machine Learning, *arXiv preprint arXiv:2005.07872*. [[pdf](#)]
- **Lee, YK.,** Bang, H., Rhee, YE., Kwon, M., Kwang, J., & Hahn, S. (2019). An Empirical Study of Pedestrian-Vehicle Interaction Using Virtual Reality. *Proceedings in HCI Korea 2019*. Jeju, Republic of Korea. [[link](#)] [[pdf](#)]

Invited Talk

- Affective Computing Group, Institute for Creative Technologies, *Viterbi School of Engineering, University of Southern California*, (Nov. 2024).
- “[Ver.2] Scaling up Psychology: From Cognitive Psychology to Human-AI Interaction II”, *Connectome Lab Invited Talk, SNU, Seoul, Korea, Aug 2022* [[slides](#)]
- “Introduction to Mental Healthcare Chatbots: Designs and Challenges”, *Dongkuk University AI Center, Korea, Jan 2022* [[slide](#)]

- “[Ver.1] Scaling up Psychology: From Cognitive Psychology to Human-AI Interaction I”, Applied Cognitions (AppCog), *Human Factors Psychology Laboratory, SNU*, Seoul, Korea, March 2021
- “Effects of SNS on Social Interactions and Depressive Symptoms of Older Adults in Korea”, *Annual Meeting of the Korean Cognitive Science Society 2019*, Seoul, Korea, April 2019
- “Empirical Study of Pedestrian-Vehicle Interaction”, *SNU Human-Computer Interaction Forum*, SNU, July 2018
- “Python for Psychologists: Introduction to PsychoPy”, *Psygrams, NAVER D2 Startup Factory*, Seoul, Korea, June 2018

Resources (Dataset and Teaching Materials)

- **Lee, YK.** (2023). Empathetic ToM Feedback Dataset. Version 1. [[github](#)]
- **Lee, YK et al.** (2022). OPELA: Open-domain conversations by Personas with Empathy, Long-term memory, and Attractive personality Dataset. SmilegateAI & Seoul National University. Version 1. [[github](#)]
- **Lee, YK et al.,** (2021). Covid19-Tom-Empathy-Diary Dataset. Version 1 [[github](#)]
- Prompt Engineering 101, Institute of Psychological Science, *SNU*, 2023. [[material](#)]
- Introduction to Chatbots: RASA Framework, *SNU*, 2021 [[code](#)]
- Introduction to Python, *SNU*, 2019 [[code](#)]
- Introduction to Deep Learning with Keras, *SNU*, 2019 [[code](#)]
- Introduction to NLP with Python, *SNU*, 2019 [[code](#)]
- Introduction to Reinforcement Learning, *SNU*, 2019 [[code](#)]
- Building Psychology Experiments with PsychoPy, *SNU*, 2018 [[code](#)]

Poster Presentations (non-archival)

- **Lee, YK, & Hahn, S.** (2019). Study of Pedestrian-Vehicle Interaction Using Virtual Reality. *The 57th Annual Meeting of the Psychonomic Society*. November 14-17, Montreal, Canada.
- **Lee, YK., Jyung M., & Hahn, S.** (2018). Individual Differences in Emotion Regulation Strategy and Buying Decision after Stressful life-events, *Association for Psychological Science*, San Francisco, CA
- **Lee, YK., Kwon, M., Bang, H., & Hahn, S.** (2018). Social and Emotional Effect of Smartphone Application Use in Korean Elderly Smartphone Users, *Korean Society for Cognitive and Biological Psychology*, Suwon, Republic of Korea.
- **Bang, H., Lee, YK., Lee, J., & Hahn, S.** (2018). Effects of motivation on task performance and choice of task demand. *The 59th Annual Meeting of the Psychonomic Society*. November 15-18. New Orleans, LA.
- **Hahn, S., Kwon, H., Ryu, J., Lee, YK., Kwon, M., & Bang, H.** (2018). Trust in Autonomous Vehicles: An empirical study with interdisciplinary perspectives. *Annual Conference of Korean Psychological Association*, March, Seoul, Republic of Korea.
- **Hahn, S., Kim, TW., Kwon, DY., & Lee, YK.** (2017). Aging and Technology Efficacy. *The 58th Annual Meeting of the Psychonomic Society*, Vancouver, Canada
- **Kim TW., Lee, YK., & Hahn, S.** (2016). The Role of Perceptual Salience in Affective Conditioning. *Annual Meeting of the Psychonomic Society*, Boston, MA.

Awards & Grants

- **Best Ph.D. dissertation award**, College of Social Sciences, Seoul National University. 2024.
[\[news\]](#)
- **2023 Social Science Future Academic Researcher Grant**, Title: “A Portrait of Emotion: Empowering Self-Expression through AI-Generated Art”, SNU, 04/2023-1/2024
- **2021 Social Science Future Academic Researcher Grant**, SNU, Title: “*Personality and Emotion Prediction of Mental Health Conversational Agent using Pre-trained Deep Learning Model*”, SNU, 04/2021-1/2022
- **2020 Social Science Future Academic Researcher Grant**, SNU, Title: “*Theory of Mind and AI: Empathy Learning of AI Using Visual Question Answering and Big Data*”, SNU, 04/2020-1/2021
- **Teaching and Research Scholarship**, SNU, 2016-2022
- **Macromill-Embrain Best Research Award**, Korea Cognitive Science Society, 2019
- Dean’s List, University of Iowa, 2012-14.

References

- Sowon Hahn, Ph.D.
Professor, Department of Psychology, Seoul National University
- Jonathan Gratch, Ph.D.
Professor, Department of Computer Engineering, University of Southern California
- Jiook Cha, Ph.D.
Professor, Department of Psychology, Seoul National University
- Bob McMurray, Ph.D.
Professor, Department of Psychological and Brain Sciences, The University of Iowa