

GIST Dr. Jaeyoung Moon appointed as a Professor at Dongduk Women's University immediately after graduation for research on 'AI that understands emotions'

- *Appointed as an Assistant Professor in the HCI Science program at Dongduk Women's University in September, following the conferment of a Ph.D. in August*
- *Developed an AI model that integrates cognitive science to reduce the burden of emotional logging; won a Best Paper Award at 'CHI 2026'*
- *Conducted joint research with over six international institutions; won an international game-AI competition and served as an AI consultant for a European startup*



▲ Dr. Jaeyoung Moon of the GIST Department of AI. Following the completion of his doctoral degree in August 2026, he will be appointed as an assistant professor in the HCI Science program at Dongduk Women's University starting in September.

The Gwangju Institute of Science and Technology (GIST; President Kichul Lim) announced that Dr. Jaeyoung Moon, who is set to receive his Ph.D. from the Department of AI on August 20, has been appointed as an assistant professor in the HCI Science program at Dongduk Women's University. He will begin his research and teaching activities starting in the fall semester of 2026.

After graduating from the Department of Computer Engineering at Sejong University, Dr. Moon entered GIST, where he earned his master's degree under the supervision of Professor KyungJoong Kim and subsequently pursued his

doctoral studies.

During his doctoral program, Dr. Moon gained international research experience by conducting collaborative studies with more than six overseas institutions, including the University of Malta and the University of Washington (USA).

Notably, through his collaboration with the University of Malta, he also gained practical industry experience by working as an AI consultant for "[humanfeedback.ai](#)," a European startup founded by Professor Georgios N. Yannakakis—a world-renowned researcher in the fields of Game AI and Affective Computing.

In 2022, while pursuing his master's degree, Dr. Moon developed "Emo-tris"—a version of Tetris integrated with facial expression recognition AI—with Professor KyungJoong Kim's research team, winning the "Game AI Jam," an international competition for game AI. Since then, he has consistently conducted research on using AI to understand human emotions and behaviors and applying this knowledge to human-AI interaction.

A key project from Dr. Moon's doctoral studies is "PREFAB" (PREFerence-based Affective modeling for low-Budget self-annotation). This is an emotion modeling technique that enables AI to estimate emotional changes without requiring users to manually record their emotions at every single moment.

Previously, tracking emotional shifts during games or specific tasks required users to manually log their emotions at regular intervals. This process was time-consuming and labor-intensive, often making it difficult for users to stay focused on the task at hand.

Dr. Moon focused on the "Peak-End Rule," a psychological concept stating that when people look back on past experiences, they tend to remember them based primarily on the moments of peak emotional intensity and the final moments. He realized that it was possible to evaluate an experience based on these standout moments without needing a comprehensive record of every single instant.

Based on this insight, he developed a method where users manually record only the moments when their emotions shifted significantly or were particularly memorable; the AI then uses this data to estimate emotional

changes during the unrecorded intervals. This approach demonstrated that it is possible to efficiently gather emotional data covering the entire experience while reducing the frequency and burden of manual recording for the user.

He also drew upon the observation that people often judge their emotions through comparison with other experiences—such as feeling "better than last time" or "more unpleasant than a moment ago"—rather than against an absolute standard. To this end, the researchers applied a "preference learning" method—in which AI learns patterns of human emotional change by comparing preferences between different experiences—to determine which experiences were favored.

The study was recognized for its excellence by winning an Honorable Mention Award at the ACM Conference on Human Factors in Computing Systems (CHI 2026), a premier global conference in the field of Human-Computer Interaction (HCI).

Currently, Dr. Moon is conducting research to develop AI models that understand human psychology and behavior based on cognitive science theories and to apply these models to systems that interact directly with people, such as wearable devices and robots.

Key research areas include "adaptive interaction" that enables users to maintain agency during human-AI/robot collaboration, "trust repair" strategies to restore confidence when trust in AI or robots has been compromised, and technologies for detecting harmful content on social media.

Moving forward, the plan is to continue researching technologies that facilitate more effective interaction and collaboration between humans and AI, while also contributing to the advancement of the field and the cultivation of talent through research and education in Human-AI Interaction (HAI).

Dr. Moon stated, "Under the guidance of Professor KyungJoong Kim, I was able to broaden my perspective as a researcher by tackling a variety of research projects." He added, "I intend to continue exploring ideal forms of human-AI interaction while becoming a researcher and educator who inspires students to take on new challenges."