Yucheon Park

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Research Interests: *Game AI, Affective Computing, Interactive Media, Vision-Language Models*

Education

Gwangju Institute of Science and Technology (GIST) — Gwangju, South Korea
Integrated M.S./Ph.D. in AI (Advisor: Prof. Kyung-Joong Kim) — *Feb. 2025 – Present*

Carnegie Mellon University (CMU) — Pittsburgh, PA, USA
Visiting Student, Artificial Intelligence (Funded by IITP, South Korea) — *Aug. 2026 – Present*

Kongju National University (KNU) — Gongju, South Korea
B.S. in Game Design & B.B.A. in Business Administration (Double Major) | GPA: 4.07 / 4.5 — *Mar. 2018 – Feb. 2025*

Deggendorf Institute of Technology (DIT) — Deggendorf, Germany
Exchange Student, International Computer Science — *Oct. 2023 – Jan. 2024*

Publications

Whirling Wishes: A Paper-and-Breath Interactive Media Installation for Hospital Waiting Spaces — Dec. 2026
ACM SIGGRAPH Asia 2026, Poster (Accepted)
***Y. Park**, Y. Lee, S.-H. Kim, E. Kwon, E. Song, and K.-J. Kim*

Judging the Imitation Game: Exploring Creator Bias in VLM-Based PCG Level Evaluation — Sep. 2026
IEEE Conference on Games (IEEE CoG 2026), Auxiliary Paper
***Y. Park**, G.-H. Hwang, and K.-J. Kim*

- Evaluated VLM-based PCG level assessment on gameplay videos, revealing that creator beliefs induce score inflation for perceived human content while preserving relative rankings.

PREFAB: PREFerence-based Affective Modeling for Low-Budget Self-Annotation — Apr. 2026
ACM CHI 2026 ***[Honourable Mention]***
*J. Moon, Y. Choi, **Y. Park**, D. Melhart, G. N. Yannakakis, and K.-J. Kim*

- Proposed a low-budget retrospective self-annotation framework using preference learning on affective inflection regions, significantly reducing user workload while preserving annotation fidelity.

A Humanoid Visual-Tactile-Action Dataset for Contact-Rich Manipulation — Oct. 2025
IROS 2025 Workshop on Robotic Fine Manipulation
*E. Kwon, S. Oh, I.-C. Baek, **Y. Park**, G. Kim, J. Moon, Y. Choi, and K.-J. Kim*

A Study on the Development Method of Mobility AR Content Interacting with Environmental Objects in Autonomous Driving Situations — Oct. 2024
Korean Institute of Smart Media (2024 Fall Academic Conference)
***Y. Park** and B. Kyung*

A Proposal for a Novel Input-Output Approach in Interactive Media Games: A Study on Shadow Detection Technology — Jun. 2023
Korea Game Society (2023 Spring Academic Conference)
***Y. Park**, Y. Kang, G. Park, Y. Jang, D. Jung, and B. Kyung*

Experience

Cognition & Intelligence Lab, GIST — Gwangju, South Korea
Graduate Research Assistant (Supervisor: Prof. Kyung-Joong Kim) — *Feb. 2025 – Present*

- Research in Game AI, Affective Computing, and Vision-Language Models.

SW Maestro (12th Cohort) — Seoul, South Korea
Mentee, Certified Software Developer Program (Ministry of Science and ICT) — *Jun. 2021 – Nov. 2021*

- Developed an AR HUD system for large vehicles integrating LiDAR and camera sensors for real-time hazard detection and forward gaze assistance while driving.

Republic of Korea Air Force Gyeryongdae, South Korea
S/W Developer, Data System Management Group *Oct. 2019 – May 2021*

- Designed and developed internal web/app systems for Air Force operations

Projects

Whirling Wishes | *Interactive Media Art, Computer Vision, Sensing* Oct. 2025 – Dec. 2025

- Developed an interactive installation translating audience breath and paper pinwheels into digital animations on a large display; exhibited at Chonnam National University Hwasun Hospital to offer psychological comfort.
- Accepted for poster presentation at ACM SIGGRAPH Asia 2026.

Gate Guardian | *In-Vehicle AR Action Game, Unity, Meta Quest 3* Dec. 2023 – Nov. 2024

- Constructed a Level 4 autonomous driving environment simulation in Unity and developed an in-vehicle AR action shooter game playable within it.
- Proposed an in-vehicle AR gameplay concept using Meta Quest 3, generating monsters based on buildings and vehicles in the simulation; published at Korean Institute of Smart Media (2024).

BAG DUST | *3D Competitive Party Brawler, Unity* Sep. 2022 – Dec. 2022

- Developed a 4-player 3D competitive party brawler game in Unity, implementing real-time local multiplayer combat supporting gamepad controllers and physics-based interactions.

Shadow Bookmark | *Interactive Media Game, Computer Vision, OpenCV* Mar. 2022 – Nov. 2022

- Served as PM and Developer for an 8-member team, applying real-time shadow detection algorithms to use physical shadows as gameplay input in an interactive puzzle game.
- Registered a domestic patent (KR 10-2916268) and published the input-output interaction study at Korea Game Society (2023).

Express Agent | *Action Rogue-lite Shooter, Unity* Mar. 2022 – Jul. 2022

- Developed an action shooter rogue-lite game featuring dual protagonists cooperating across past and present timelines.

Large Vehicle AR HUD System | *AR HUD Solution, LiDAR, Camera Sensor Fusion* Jun. 2021 – Nov. 2021

- Engineered a sensor-fusion AR HUD system integrating LiDAR and camera inputs for forward hazard detection and driver gaze assistance.

Air Force Fitness Test Support System | *Mobile Web Portal, Web, Database* Mar. 2021

- Constructed an internal military mobile web system for service members to record, track, and verify physical fitness exam results.

Patents

Systems That Provide Responsive-Type Game Services Using Shadow | *KR 10-2916268* Jan. 2026

Selected Honors & Awards

Honorable Mention | *CHI'26* Apr. 2026
Issued by ACM, SIGCHI, General Chairs, Award Chairs

1st Place | *Orak Game Agent Challenge 2025 (SLM Track)* Mar. 2026
Issued by KRAFTON

3rd Place | *2024 XR Device Content Makerthon* Nov. 2024
Issued by Director of the Gumi Electronics & Information Technology Research Institute

2nd Place Aug. 2024
9th "Huichang Youth" Shanghai University Student Cultural and Creative Works Exhibition (Digital Media, Animation Category)
Issued by The Communist Party of Shanghai Municipal Education and Health Work Committee, Shanghai Municipal Education Commission

TOP 20 | *2024 INDIECRAFT Challenger Division* Jul. 2024
Issued by Director of Korea Mobile Game Association

2nd Place | *GIST × HDF Micro Design Challenge Hackathon* Jul. 2024
Issued by President of Gwangju Institute of Science and Technology, President of Hannam University

Excellence Prize | *2022 Daejeon Newbie Game Development Competition* Dec. 2022
Issued by Director of Daejeon Information & Culture Industry Promotion Agency

The Grand Prize | *2022 HANIUM ICT Mentoring Competition* Dec. 2022
Issued by Minister of Science and ICT

The Grand Prize (Gold Prize) | *2019 The Fourth International Game Jam in China* Jul. 2019
Issued by Animation, Comics and Games Professional, Committee of China Cultural Chamber of Commerce of the Private Sector, Korean Game Society, Jilin Animation Institute, Animation and Game Association of Jilin Province

Technical Skills

Languages:	Python, C#, JavaScript
AI & Vision:	PyTorch, Vision-Language Models (VLM), OpenCV
Game & XR:	Unity (3D/2D), Meta Quest (VR)
Tools & Design:	Git, Figma, Adobe Photoshop / Illustrator / Premiere Pro