

DAEUN HWANG

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FIELDS OF INTERESTS

Human-Computer Interaction, Agency and Creativity with AI, Music Information Retrieval, Educational Technology

EDUCATION

University of Washington, United States

Sept. 2025 - Present

Ph.D. in Information Science. Advised by Dr. Jin Ha Lee & Dr. Jason C. Yip.

Anticipated graduation date: June 2029

University of California Santa Cruz, United States

Sept. 2023 - June 2025

M.S. in Computational Media. Advised by Dr. Edward F. Melcer.

Graduate researcher with full tuition & stipend support, GPA: 4.0/4.0

Yonsei University, South Korea

Mar. 2018 - June 2023

Bachelor of Science, Information & Interaction Design / Micro-major in Computer Programming

GPA: 3.9/4.3

PUBLICATIONS

Conference Papers

- Hirsch, L., **Hwang, D.**, Johns, M., / Isbister, K. (2025, July). HCI for Climate Resilience: Developing an Individual and Community Focused Framework through a Grounded Theory Approach. *In Proceedings of the 2025 ACM Designing Interactive Systems Conference* (pp. 1740-1757).
- Liang, Z., **Hwang, D.**, Chen, S., Hoang, N. H., Khotchasing, K., & Melcer, E. F. (2025). User Preferences for Interaction Timing in Smartwatch Sleep Hygiene Games. *In Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems* (pp. 1-17).
- Johnson-Bey, S., Liao, K., Shields, S., **Hwang, D.**, Wardrip-Fruin, N., Mateas, M., & Melcer, E. (2024). Building Visual Novels with Social Simulation and Storylets. *In International Conference on Interactive Digital Storytelling* (pp. 145-161). Cham: Springer Nature Switzerland.
- **Hwang, D.**, & Melcer, E. F. (2024). Mindfulness Techniques Taught Through Game Mechanics. *In Companion Proceedings of the 2024 Annual Symposium on Computer-Human Interaction in Play.* (pp. 300-305).
- **Hwang, D.**, & Melcer, E. F. (2024). Exploring engagement in Idle Game Design. *2024 IEEE Conference on Games (CoG)*, 1-8.
- **Hwang, D.**, & Park, S. (2023). EMO100DB: An Open Dataset of Improvised Songs with Emotion Data. *International Conference of Music Perception and Cognition 2023.*
- **Hwang, D.**, Oh, S., & Jun, S. (2022). Does Interactive Media Art Engage an Audience More Than Non-Interactive One Does?. *KSDS 2022 Conference Proceeding*, 220-221.
- **Hwang, D.**, Choi, M., Jung, H., Baek, Y., Lee, H. B., Lee, Y., Ho, J., Lee, J., & Jun, S. (2022). Meari: Interactive Smart Screen Designed to Tailor Personal Hiking Routes. *KSDS 2022 Conference Proceeding*, 262-263.
- **Hwang, D.**, Chung, Y., Yoo, Y., Jun, S., & Holoubek, T. (2020). Sbin: Smart, Interactive and IoT-Based Rotating Garbage Classifying Bin. *KSDS 2020 Conference Proceeding*, 172-173.

Journal Articles

- Hoang, N. H., Villeneuve, J., Morrison, H., Tu, A., Karunaratna, T., **Hwang, D.**, ... & Melcer, E. (2026). Delivering Sleep Hygiene Interventions through Smartwatch-based Serious Sleep Games. *Sleep Medicine*, 138, 108585. Shields, S., Lafosse, C., Johnson-Bey, S., **Hwang, D.**, Wardrip-Fruin, N., & Melcer, E. F. (2025). Could vs Should: Exploring Prompting Strategies and Writer Perspectives Towards LLM Assistance in Storylet Authoring. *IEEE Transactions on Games*.
- Liang, Z., Melcer, E., Khotchasing, K., Chen, S., **Hwang, D.**, & Hoang, N. H. (2024). The Role of Relevance in Shaping Perceptions of Sleep Hygiene Games Among University Students: Mixed Methods Study. *JMIR Serious Games*, 12, e64063.
- Ryu, H., Bang, H., **Hwang, D.**, & Kang, Y. (2023). Exploring the Extent of Usability for Augmented Profile Interfaces in Enhancing Conversation Experiences. *Interacting with Computers 2023*.
- **Hwang, D.**, & Kang, Y. (2023). How Does Constructive Feedback in an Educational Game Sound to Children?. *International Journal of Child-Computer Interaction*, 36, 100581.

Poster/Workshop Presentations

- **Hwang, D.**, Shields, S., Calderwood, A., Johnson-Bey, S., Mateas, M., Melcer, E. (2025). "Clicking some of the silly options": Exploring Player Motivation in Static and Dynamic Educational Interactive Narratives. *CHI 2025 Workshop on Augmented Educators and AI*; Apr. 26, 2025; Yokohama, Japan.
- **Hwang, D.**, & Hwang, H. (2024). Understanding Human Perception of Music Plagiarism Through a Computational Approach. *25th Conference of the International Society for Music Information Retrieval (ISMIR)*; Nov. 17, 2024; San Francisco, CA.
- **Hwang, D.**, X, Cai, E. Melcer, & E. Carstendottir. (2024). A Music Information Retrieval Approach to Classify Sub-genres in Role Playing Games. *25th Conference of the International Society for Music Information Retrieval (ISMIR)*; Nov. 17, 2024; San Francisco, CA.

WORK EXPERIENCE

Google LLC

Mar. 2026 - Present

Student Researcher

- Conducted research on Human-AI interaction and user agency

Incheon Start-up Park

June 2021 - Nov. 2023

UX Researcher

- Led and participated in UX consulting process for 6 different start-up companies
- Provided strategies for successful overseas launching of the products
- Conducted various UX research including 5+ field studies, 20+ usability testings, 10+ scenario-based observational studies, 5+ surveys, etc.

Korea Food for the Hungry International

July 2021 - Dec. 2021

System Consultant

- Created overall template and structure to record and to keep tracking Objectives and Key Results (OKR) system
- Analyzed co-workers' user experience and overall interaction with the OKR system

DoBrain Inc.

Nov. 2020 - June 2021

Global Marketing Intern

- Achieved 1st quarter OKR of on-boarding first 100 global users through initialization of social media accounts
- Conducted user research (field studies, interviews, observational studies, etc)
- Analyzed daily user funnel using SQL and produced ad creatives which led to 12% increase of the sales

TECHNICAL SKILLS

Programming & Data	R, IBM SPSS Statistics, Python, CSS, Javascript, mySQL, Git, Firebase, Supabase
Qualitative Research	Usability testing, in-depth interviews, diary studies, observational research, thematic coding
Quantitative Research	Experimental design, A/B testing, survey design, behavioral data analysis, log analysis
Design & Prototyping	Figma, Adobe Suite (Premiere Pro, Photoshop, InDesign, Illustrator), P5js, Sonic Pi

RESEARCH EXPERIENCE

Academical: A Choice-Based Interactive Storytelling Game for RCR / funded by the U.S. National Science Foundation *Apr. 2024 - June 2025*

Advisor: Prof. Edward Melcer, Prof. Noah Wardrip-Fruin, Prof. Michael Mateas

- Designed and executed an experimental studies comparing AI-integrated and static versions of interactive storytelling game, leading to a publication at the CHI 2025 workshop.
- Designed 2D character sprites for the dynamic version (v.3.0) of the narrative game

Gamifying Sleep Health / ALT Games Lab & KUAS' Ubicomp Lab *Oct. 2023 - Nov. 2024*

Advisor: Prof. Edward Melcer, Prof. Zilu Liang

- Led design ideation session for sleep-aiding pet game and building Japanese town game
- Participated in desk research for existing sleep hygiene gamification mechanics

Enhancing Coastal Climate Resilience using Applied Technology *June 2024 - Dec. 2024*

Advisor: Prof. Katherine Isbister, Dr. Linda Hirsch

- Conducted theory-based coding for the analysis of expert interviews
- Created sketches to support ideation and solution design development

Development of Servitization on Smart Air Clean System Airbot Airblock using Acoustic Waves and Clean Plasma Technology / Korea Air Industry Promotion Association *Oct. 2022 - Dec. 2022*

Advisor: Prof. Younah Kang

- Led usability testing, diary studies, and experimental observational research within Virtual Reality settings
- Collaborated with engineering and design teams to deliver actionable UX insights to stakeholders
- Deployed server connection using Firebase and python, to send signals indicating different scenarios in VR environments

Design for Experience Lab / Yonsei University *Mar. 2021 - Aug. 2023*

Advisor: Prof. Younah Kang

- Conducted in-depth interviews, observational studies, and diary studies on user experience in terms of Human-Computer Interaction, collaborating with master's degree students in the Innovation department

Computational Science and Engineering Lab / Yonsei University *July 2020 - Aug. 2020*

Advisor: Prof. Eunjung Lee

- Studied machine learning models using Python and Matlab as a summer research intern
- Explored different model and data visualizations

LANGUAGES

Korean	Native, first language
English	Fluent, TOEFL iBT 116/120
Spanish	Fluent, DELE C1 (second-highest level)
Portuguese	Beginner (Simple conversations)

AWARDS AND ACKNOWLEDGEMENTS

High Honors (top 3% of the students in their respective field of study), <i>Yonsei University</i>	<i>June 2022</i>
The Great Challenge Global Korean Youth Video Gold Prize, <i>MBC & YMCA</i>	<i>Oct. 2021</i>
Social Innovation Ambassador, <i>Institute for Higher Education</i>	<i>Sept. 2021</i>
Honors (top 10% of the students in their respective field of study), <i>Yonsei University</i>	<i>June 2021</i>
Grand Prize Designer, <i>Yonsei Merchandise Society</i>	<i>June 2021</i>
Innovation Light-up 1st Scholarship Holder, <i>Institute for Higher Education</i>	<i>Sept. 2020</i>
Dooeul 21st Scholarship Holder, <i>Dooeul Scholarship Foundation</i>	<i>Oct. 2018</i>

CERTIFICATES

Career Essentials in Generative AI by Microsoft and LinkedIn, <i>Microsoft</i>	<i>June 2024</i>
Programming Foundations: Beyond the Fundamentals, <i>LinkedIn</i>	<i>June 2024</i>
Project Management Foundations: Requirements, <i>LinkedIn</i>	<i>June 2024</i>
Responsible Conduct of Research for Engineers, <i>CITI Program</i>	<i>May 2024</i>
International Research, <i>CITI Program</i>	<i>May 2024</i>

TEACHING EXPERIENCE

Teaching Assistant: Research Methods, University of Washington	<i>Sept. 2025 - Dec. 2025</i>
Teaching Assistant: Game AI, University of California Santa Cruz	<i>Mar. 2025 - June 2025</i>
Teaching Assistant: Game Design, University of California Santa Cruz	<i>Jan. 2025 - Mar. 2025</i>
Teaching Assistant: Rapid Prototyping, University of California Santa Cruz	<i>Sept. 2024 - Dec. 2024</i>
Teaching Assistant: Foundations of Video Game Design, University of California Santa Cruz	<i>Sept. 2023 - Dec. 2023</i>
Talk Show Guest: Social Innovation Talk Concert 2022 IHEI Show-off Festa II	<i>Jan. 2023</i>
Special Lecturer: Social Innovation Lecture - <i>Innovation Isn't Too Far From Us</i>	<i>May 2022</i>
Mentor: Social Innovation Mentoring with Youth, Institute for Higher Education	<i>April 2022 - Aug. 2022</i>
Teaching Assistant: User Experience and Research Methods Course, Yonsei University	<i>Sept. 2021 - Dec. 2021</i>
Solution Design Mentor: Career Exploration Program, Incheon Office of Education	<i>Sept. 2021</i>
Camp Assistant: UNOSD 5th SDGs Youth Summer Camp	<i>Aug. 2021</i>
Teaching Assistant: Programming for Integrated Science and Engineering, Yonsei University	<i>Sept. 2020 - Dec. 2020</i>
Operator : Social Engagement Mentoring Camp, Yonsei University	<i>July 2019</i>
Mentor: Creative Problem Solving Camp	<i>July 2018 - Aug. 2018</i>

VOLUNTEER ACTIVITIES

CSCW 2022 Student Volunteer	<i>Nov. 2022</i>
UIST 2022 Student Volunteer	<i>Nov. 2022</i>
IUI 2022 Student Volunteer	<i>Mar. 2022</i>
Buan English Camp Mentor	<i>July 2019 - Aug. 2019</i>
Dongshimwon (Center for children with disabilities) Volunteer	<i>Mar. 2019 - June 2019</i>
Korea Food for the Hungry International Sponsor Letter Translator (Spanish - Korean)	<i>Sept. 2018 - Jan. 2019</i>
Mapo Community Rehabilitation Center Family Camp Volunteer	<i>July 2018</i>

REFERENCES

Dr. Edward F. Melcer

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Carleton University / University of California, Santa Cruz
Email: EdwardMelcer@cunet.carleton.ca

Dr. Younah Kang

Associate Professor, Information and Interaction Design
Yonsei University

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