DAEUN HWANG

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FIELDS OF INTERESTS

Educational Technology, Digital Game-Based Learning, Human-Computer Interaction, Music and Creative Expression

EDUCATION

University of California Santa Cruz, United States   *Sept. 2023 - Present*
Ph.D. in Computational Media. Advised by Dr. Edward F. Melcer.
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

Journal Articles

- 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. https://doi.org/10.2196/64063

- 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*. https://doi.org/10.1093/iwc/iwad045

- **Hwang, D.**, & Kang, Y. (2023). How Does Constructive Feedback in an Educational Game Sound to Children?. *International Journal of Child-Computer Interaction, 36*, 100581. https://doi.org/10.1016/j.ijcci.2023.100581

Conference Papers

- 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).https://doi.org/10.1145/3706598.3713591

- 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. https://doi.org/10.1007/978-3-031-78450-7_9

- **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). https://doi.org/10.1145/3665463.3678839

- **Hwang, D.**, & Melcer, E. F. (2024). Exploring engagement in Idle Game Design. *2024 IEEE Conference on Games (CoG)*, 1–8. https://doi.org/10.1109/cog60054.2024.10645671

- **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.

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

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

UX	In-depth interview, Usability Testing, Think-aloud/Cognitive Walkthrough, Diary Study, Focus Group, Participatory Design, Card-sorting Study, A/B Testing
Programming	Python, CSS, Javascript, mySQL, Java, C++, C#
Adobe	Premiere Pro, Photoshop, Lightroom, InDesign, XD, Illustrator, Audition, After Effects
Other	IBM SPSS Statistics, Figma, Logic Pro, TouchDesigner, Final Cut Pro, P5js

RESEARCH EXPERIENCE

Academical: A Choice-Based Interactive Storytelling Game for RCR   *Apr. 2024 - Present*
Advisor: Prof. Edward Melcer, Prof. Noah Wardrip-Fruin, Prof. Michael Mateas

- Conducted experimental studies comparing AI-integrated and non AI-integrated versions of interactive storytelling game.
- Created character sprites for the dynamic version 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 process for sleep-aiding pet game and building Japanese town game.
- Participated in research for sleep hygiene gamifications

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

- Deployed server connection using Firebase and python, to send signals indicating different scenarios
- Conducted usability testing session using the VR device

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

LANGUAGES

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

AWARDS AND ACKNOWLEDGEMENTS

High Honors (top 3% of the students in their respective field of study), *Yonsei University* *June 2022*

The Great Challenge Global Korean Youth Video Gold Prize, *MBC & YMCA* *Oct. 2021*

Social Innovation Ambassador, *Institute for Higher Education* *Sept. 2021*

Honors (top 10% of the students in their respective field of study), *Yonsei University* *June 2021*

Grand Prize Designer, *Yonsei Merchandise Society* *June 2021*

Innovation Light-up 1st Scholarship Holder, *Institute for Higher Education* *Sept. 2020*

Dooeul 21st Scholarship Holder, *Dooeul Scholarship Foundation* *Oct. 2018*

CERTIFICATES

Career Essentials in Generative AI by Microsoft and LinkedIn, *Microsoft* *June 2024*

Programming Foundations: Beyond the Fundamentals, *LinkedIn* *June 2024*

Project Management Foundations: Requirements, *LinkedIn* *June 2024*

Responsible Conduct of Research for Engineers, *CITI Program* *May 2024*

International Research, *CITI Program* *May 2024*

VOLUNTEER ACTIVITIES

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

REFERENCES

Dr. Edward F. Melcer
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Carleton University / University of California, Santa Cruz
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Dr. Younah Kang
Associate Professor, Information and Interaction Design
Yonsei University
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