

DAEUN HWANG

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daeunhwang.com/research

FIELDS OF INTERESTS

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

EDUCATION

University of California Santa Cruz, United States

Sept. 2023 - Present

Ph.D. in Computational Media

GPA: 4.0/4.0. Advised by Dr. Edward F. Melcer.

Yonsei University, South Korea

Mar. 2018 - June. 2023

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

GPA: 4.06/4.5.

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

- **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. J., 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. J., Yoo, Y. M., Jun, S., & Holoubek, T. (2020). Sbin: Smart, Interactive and IoT-Based Rotating Garbage Classifying Bin. *KSDS 2020 Conference Proceeding*, 172-173.

Poster Presentations

- **Hwang, D.**, & Hwang, H. Understanding Human Perception of Music Plagiarism Through a Computational Approach. Poster presented at: *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. Poster presented at: *25th Conference of the International Society for Music Information Retrieval (ISMIR)*; Nov. 17, 2024; San Francisco, CA.

WORK EXPERIENCE

Incheon Start-up Park

UX Researcher

June 2021 - Nov. 2023

- 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

System Consultant

July 2021 - Dec. 2021

- 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.

Global Marketing Intern

Nov. 2020 - June 2021

- 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

Enhancing Coastal Climate Resilience using Applied Technology

June 2024 - Present

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

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 - Present

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

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

Associate Professor, Computational Media
University of California, Santa Cruz
Email: eddie.melcer@ucsc.edu

Dr. Youngh Kang

Associate Professor, Information and Interaction Design
Yonsei University
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