

# DAEUN HWANG

Santa Clara, CA

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[daeunhwang.com/research](http://daeunhwang.com/research)

## FIELDS OF INTERESTS

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Human-Computer Interaction, Creative Technologies, Serious Games, Digital Game-Based Learning, Music

## EDUCATION

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**University of California Santa Cruz, United States**

Sept. 2023 - Present

*Ph.D. in Computational Media*

GPA: 4.0/4.0. Co-advised by Dr. Edward F. Melcer and Dr. Katherine Isbister.

**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

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### 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. (Upcoming)
- **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. (Upcoming)

## RESEARCH EXPERIENCE

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### 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.

## WORK EXPERIENCE

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### 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**

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<b>Programming</b>	Python, CSS, Javascript, mySQL, Java, C++, C#
<b>Adobe</b>	Premiere Pro, Photoshop, Lightroom, InDesign, XD, Illustrator, Audition, After Effects
<b>Other</b>	IBM SPSS Statistics, Figma, Logic Pro, TouchDesigner, Final Cut Pro, P5js

**LANGUAGES**

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

**TEACHING EXPERIENCE**

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

**AWARDS AND ACKNOWLEDGEMENTS**

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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

## VOLUNTEER ACTIVITIES

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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>

## CERTIFICATES

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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>