

# HYUNJOO AHN

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## EDUCATION

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- Master, Human Environment and Design, Yonsei University**, Seoul, Korea Mar 2023 – Feb 2025  
Major : Digital Design  
GPA : 4.28/4.3
- Bachelor, Media & Entertainment, Sogang University**, Seoul, Korea Mar 2019 – Feb 2023  
Early Graduation after Seven Semesters, Graduated with honors (Summa Cum Laude)  
GPA : 4.08/4.3
- Exchange Student, Boston College**, Chestnut Hill, MA, USA Fall 2021  
Courses in Film Production
- Extension Program (Online, Live), Harvard University**, Cambridge, MA, USA Jul – Aug 2025  
Course in Discrete Mathematics
- Extension Program (Online), University of California, Berkeley**, CA, USA Jun – Sep 2025  
Course in Calculus
- Foreign Language High school**, Seoul, Korea Mar 2016 – Feb 2019  
Major : German

## RESEARCH EXOERIENCE

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- [Paper] CIE Lab-based Color Combinations Proposal for Enhancing the Perception of Motion Illusions**  
ADVISOR: Prof. Sang Won Lee (Yonsei University) Oct 2023 – Aug 2025  
RESPONSIBILITIES: algorithm development and optimization in CIE Lab; finding the threshold by defining parameters and conducting experiment  
SKILLS: non-linear dimensional reduction, java processing, python, design algorithm for image processing
- [Paper] The Transformation of the Design Thinking Process with AI Intervention: Focusing on Generative Artificial Intelligence and Large Language Models**  
ADVISOR: Prof. Jung Min Kho (Yonsei University) Mar 2024 – Jun 2024  
RESPONSIBILITIES: redesigning the design process through qualitative and quantitative evaluation; Quantitative analysis using word frequency, co-occurrence frequency, and CONCOR analysis.  
SKILLS: design thinking process, quantitative analysis using Python, CONCOR analysis
- [R&D] NLP Deep Learning Model-based Color Combination Design Platform**  
ADVISOR: Prof. Sang Won Lee (Yonsei University) Mar 2023 – Feb 2024  
RESPONSIBILITIES: embedding semantic relationships of words using Word2Vec and cosine similarity; modeling relationships between data points by implementing physical forces; development of real-time interactive features  
SKILLS: machine learning algorithms, dimensionality reduction techniques, graph algorithms for physical force, real-time rendering and interactive systems
- [Paper] HMI Icon Design for Construction Machinery Operator using Critical Incident Technique (CIT)**  
ADVISOR: Prof. Sang Won Lee (Yonsei University) Mar 2023 – Aug 2023  
RESPONSIBILITIES: development a construction site simulation using Unity; collision physics implementation; real handles and brakes integration with Unity  
SKILLS: C# programming for Unity, 3D modeling(Maya), physics simulation, hardware intergration
- [R&D] Convergence Research Center for Wellness and Environment Systems** Dec 2022 – Jun 2023  
RESPONSIBILITIES: development a predictive model for future crime rates using GWR; Mapping data using geographic coordinates; design an interactive visualization model  
SKILLS: data analysis using regression, geospatial mapping, interactive data visualization

PROFESSIONAL EXPERIENCE

Disney Korea | Seoul, Korea  
3D Video Producer

- Creating 3D models and applied physics engines through Houdini and vex for VFX simulations
- Utilizing After effects and Premiere pro for realistic visual effects in both 3D and 2D motion graphics.

PUBLICATIONS

[5] Ahn, H., Long, X., and Lee, S.\* (2025) Harnessing Motion Illusions for Visual Design: Validating and Constructing Hue-Contingent Reverse-Phi Flows (*Under Review\**)

[4] **Ahn, H.** & Lee, S.\* (2025). CIELab-Based Color Combinations Proposals for Maximizing Motion Illusion Effects Centered on Hue Angles(Theta), *Journal of the HCI Society of Korea*. [10.17210/jhsk.2025.06.20.2.99](https://doi.org/10.17210/jhsk.2025.06.20.2.99)

[3] **Ahn, H.** & Lee, S.\* (2024). The Impact of Color on 2D Motion Illusion Design-Focused on Color Elements and Proximity Model within the CIE Lab Color Space. *Journal of The Korean Society Design Culture*, 30(3), 239–253. <https://doi.org/10.18208/ksdc.2024.30.3.239>

[2] Chung, D., Lee, J. H., Cho, E., **Ahn, H.**, & Kho, J.\* (2024). The Transformation of the Design Thinking Process with AI Intervention: Focusing on Generative Artificial Intelligence and Large Language Models. *Korea Institute of Design Research Society*, 9(2), 25–44. <https://doi.org/10.46248/kidrs.2024.2.25>  
(\*Best Paper Award)

[1] Park, S., Kim, T., Chung, D., **Ahn, H.**, & Lee, S.\* (2023). HMI Icon Design for Construction Machinery Operator using Critical Incident Technique (CIT). *Journal of the HCI Society of Korea*, 18(4), 21–29. <https://doi.org/10.17210/jhsk.2023.12.18.4.21>

CONFERENCE & EXHIBITION

[1] **Ahn, H.** & Lee, S.\* (2023). Can you stop this motion?: Factors making motion illusion. KSDS Conference Proceeding. Jun 2024

[2] Cho, E., Chung, D., **Ahn, H.**, Lee, J., & Kho, J.\* Exploring the role of UX designers in generative AI collaboration – focused on the design thinking process. KSDS Conference Proceeding. Jun 2024

[3] Sin, S., Park, S., Kim, T., **Ahn, H.**, Jung, A., Ryu, G., Kim, T., Jung, J., & Lee, S.\* User-centered Sentiment Language-based Color Scheme Recommendation Web Service Design Feb 2024

[4] **Siggraph Exhibition**, LA Aug 2023

HONORS & AWARDS

<b>GSRA Scholarships</b> ( <i>Graduate, Yonsei University</i> )	2024
<b>Research Assistant Scholarships</b> ( <i>Graduate, Yonsei University</i> )	2023-2024
<b>Grand Prize (Creative Science Competition)</b> , Ministry of Environment	2017

TEACHING EXPERIENCE

<b>Graduate Peer Tutoring</b> , Yonsei University	
Basic Python	Sep 2023 – Dec 2023
C# for Unity	Mar 2024 – Jun 2024
<b>Lab Teaching Assistant</b> , Sogang University	
<b>Fundamental Coding for Game Development</b>	Mar 2022 – Jun 2022; Mar 2023 – Jun 2023

CERTIFICATIONS

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<i>Computer Specialist in Spreadsheet and Database, Korea Productivity Center</i>	2021
<i>Web Programming with Python and JavaScript, edX (Harvard University)</i>	2025