Hoon Yoon

Senior Interaction Designer (UI)
M.S.MDC, MID, BFA

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As a Senior UI designer at Samsung Electronics, Hoon Yoon has been participating in UI/UX projects that incorporate diverse domains like Mixed Reality, Tangible UI, Connected Car, and IoT. **Recently, he has been designing the Spatial User Interface regarding Multimodal Interaction-driven eXtended Reality (XR)**. Also, he holds a Master of Science at Matter Design Computation (M.S.MDC) from Cornell University, and was a research associate of Jenny Sabin Lab (JSLab) at Cornell AAP. Regarding his recent academic activity, he conducted his thesis project about modeling a holographic cellular interface responsive to physical gestures and architectural attributes.

Keyword Summary - Areas, Tools, and Skills

[Areas of Experience]
Conventional Mobile App-based UX/UI/GUI, TV App Dashboard UI/GUI, Spatial UI/GUI, AI Agent-driven UX/UI/GUI, Connected Car's Digital Cockpit UI, Unreal Engine-based UI/GUI in VR, Multimodal Interaction-driven Gesture Design and Recognition in XR, UI Standardization, Computational Design

[UI/UX/GUI Tools]
Figma (★★★★★), Sketch (★★★★★), Protopie (★★★★★), Photoshop (★★★★★), Illustrator (★★★☆☆), After Effect (★★★★☆), InVision (★★★☆☆), Zeplin (★★★☆☆)

[UI/UX - Work & Methodology Skills]
Prototyping, UI Wireframe, GUI Design, Developmental Workflow, Information Architecture, UI Standardization, UEQ-driven Affinity Analysis, HCI-driven FGI & Testing

[VR/MR Tools]
Unreal Engine (★★★☆☆), Unity 3D (★★★☆☆), Fologram (★★★★★), Rhino3D and Grasshopper (★★★★☆)

Education

Master of Science in Matter Design Computation (M.S.MDC), Cornell University | *Ithaca, New York, Aug.2021 ~ May.2023*
- Thesis: CellNet - Bio-inspired adaptive cellular interface in Mixed Reality | Committee: Jenny E. Sabin (Chair), Farzin Lotfi-Jam, Wendy Ju
- Student Representative of M.S.MDC program | *Aug.2022 ~ May.2023*
- Research Associate, Jenny Sabin Lab (JSLab) | *Jan.2022 ~ May.2023*
- Research Associate, Realtime Urbanism Lab | *Aug.2022 ~ Dec.2022*
- Partial Teaching Assistant, Lecture - Matter Design Computation (Lecturer: Jenny E. Sabin) | *Jan.2022 ~ May.2022 (Spring Semester, 2022)*
   * This Master's degree was obtained during the period of "Leave of Absence for Academic Training" at Samsung Electronics.

Master of Industrial Design (MID), Rhode Island School of Design (RISD) | *Providence, Rhode Island, Sep.2014 ~ Jun.2016*
Bachelor of Fine Arts (BFA) (Intensive Major in Industrial Design & Information Design), **Korea University** | *Seoul, South Korea, Mar.2008 ~ Feb.2014*

Experience

[Senior Interaction Designer (UI) - Samsung Electronics / Seoul, South Korea | *Work Period: Feb.2018 ~ Present*]

1. Next Generation Group, Corporate Design Center (CDC) | *Aug.2023 ~ Present*
- **Samsung AI Visual Cue** | *Jan.2025 ~ Present*
- **Samsung TV & IMU Sensor-embedded Ring Interaction Project** | *Jan.2024 ~ Dec.2024*
   - Designed a TV platform-based user interface responsive to IMU Sensor-embedded ring
- **Samsung XR Experience - Intelligent Display** | *Aug.2023 ~ Dec.2024*
   - Participated in designing the UI/UX of AI-Agent-driven Spatial User Interface for the XR environment
   - Designed hand-gesture-centered multimodal interaction methods for AI-Agent-driven spatial user interface under the XR environment

2. Period of "Leave of Absence for Academic Training" | *Aug.2021 ~ May.2023*
- **Spent 2 years as a graduate student of Cornell M.S.MDC program (GPA 4.073/4.3)**

3. UX Platform Group, Corporate Design Center (CDC) | *Dec.2020 ~ Jul.2021*
- Samsung SmartThings Air (Ver. 2.0) in "Samsung SmartThings" Platform | *Mar.2020 ~ Jul.2021*
   - **Designed the entire UI/UX of SmartThings Air Plugin (Ver. 2.0.0), which controls Samsung's Air Monitoring, Conditioning, and Purifying devices**

4. UX Solution Group, Corporate Design Center (CDC) | *Apr.2018 ~ Nov.2020*
- Cross Design Fair (Internal Strategy-proposal fair to the president group)
   - **Contributed to designing one of 4 core MDE frameworks—"Share" (Media Connectivity between devices)** | **Mar.2019 ~ Jun.2019* (2nd fair)
   - Contributed to designing and prototyping a futuristic MDE-driven lifestyle | **Apr.2018 ~ Jun.2018* (1st fair)
- Samsung SmartThings Air (Ver. 1.1 ~ 1.3) in "Samsung SmartThings platform | *Sep.2019 ~ Aug.2020*
   - Maintained the UI/UX of SmartThings Air plugin (Ver. 1.1 ~ 1.3) with minor updates
- UNESCO - Samsung Hack Culture: Digital Solutions to Empower Women and Safeguard Traditional Craft | *Aug.2019*
   - Proposed an "Add-on Toolkit App" to foster Doi-Pui Hmong Tribe's marketing campaign
- Service Plugin UX Standardization for SmartThings | *Feb.2019 ~ Apr.2019*
   - Contributed to establishing an initial UI principle for service plugins of SmartThings (e.g., Service Onboarding, Service Card UI, UI/UX Principle)
- Samsung SmartThings - iOS Delta | *Apr.2018 ~ Dec.2019*
   - Participated in designing the UI of SmartThings' iOS Delta Ver. (e.g., Settings, Automation, Security Service Plugins - SHM/VHM, etc.)

[Research Associate - Jenny Sabin Lab (JSLab), Cornell University / Ithaca, New York | *Work Period: Jan.2022 ~ May.2023*]
- Participated as a researcher and computational designer in the interuniversity project "Urol:en", which explores the possibility of integrating microscopic nature's morphogenetic traits like cell growth emergent systems with architectural, computational modelings.
- Conducted iterative research and exercises on SULLA (ABB Robot Arm)-based robotic drawing via Rhino 3D & Grasshopper script, and also generative modeling via PotterBot clay extruder by GCode manipulation.
- Research collaboration with *Roeder Lab* (Cornell University)
- Computational Modeling on Arabidopsis sepal meristem structure's morphological traits via MorphographX and Grasshopper 3D

[UX Planner - Designfever / Seoul, South Korea | *Work Period: Jan.2017 ~ Dec.2017*]
1. Samsung Mobility Vision for CES 2018 | Sep.2017 ~ Dec.2017
- Designed the UI/UX for the connected car's digital cockpit that interconnects with IoT appliances
- Project Film URL: https://youtu.be/WwoLhywrno0
2. Samsung Interactive Table for Samsung Galaxy Note8 Unpack, New York | Jun.2017 ~ Sep.2017
- Designed the UI/UX of a multitaction table in sync with Samsung Galaxy Note8 and S-Pen
- Company URL: http://old.designfever.com/detail.html?cate=002&no=701&type=main
3. Samsung Interactive Table for Samsung Galaxy S8 Unpack, New York | Jan.2017 ~ Apr.2017
- Designed the entire UI/UX of a multitaction table in sync with Samsung Galaxy S8
- Company URL: http://old.designfever.com/detail.html?cate=002&no=694&type=main

Publication
<Journal Article>
1. **Yoon, H.**, Ju, W., Lotfi-Jam, F., & Sabin, J. (2025). CELLNET: Biomimetic cell interface adaptable to physical stimuli and environment. *Archives of Design Research, 38*(1), pp 7–29. https://doi.org/10.15187/adr.2025.02.38.1.7

2. **Yoon, H.**, Im, H., Kim, Y., Song, Y., & Yi, T. (2024). Investigating preferential usability on intelligent agent-driven multimodal interaction within the extended reality environment. *Archives of Design Research, 37*(4), 7–24. https://doi.org/10.15187/adr.2024.08.37.4.7
(This paper has been selected as a monthly excellent paper of ADR Vol.37 (4) August 2024, and our research visual was featured on the journal's front cover)

<Conference Proceedings>
3. Lok, L. and **Yoon, H.** (2025). Parametric Tile-Nesting System for a Curved Bamboo Strip: Deploying mixed reality from input to assembly for bamboo material. *ARCHITECTURAL INFORMATICS* - Proceedings of the 30th CAADRIA Conference, Tokyo, 22-29 March 2025, Volume 2, pp. 551–560.

Presentation
Yoon, H. (2025, March 28th). Parametric Tile-Nesting System for a Curved Bamboo Strip: Deploying mixed reality from input to assembly for bamboo material [On-site Powerpoint Presentation]. *ARCHITECTURAL INFORMATICS* - 30th CAADRIA Conference, Tokyo, 22-29 March 2025.

Patent
Yoon, H., & Lee, J. (2023). Display screen or portion thereof with graphical user interface (U.S. Patent No. D980,240 S1). U.S. Patent and Trademark Office. https://patents.google.com/patent/USD980240S1/en

Kim, J., Sohn, M., Won, S., **Yoon, H.**, Lee, K., & Hwang, S. (2023). Method for providing user interface and electronic device therefor (U.S. Patent No. 11,586,342). U.S. Patent and Trademark Office. https://patents.google.com/patent/US11586342B2/en

Jeong, K., Kim, S., & **Yoon, H.** (2022). *Communication method between different electronic devices, server and electronic device supporting same* (U.S. Patent No. 11,482,230). U.S. Patent and Trademark Office. https://patents.google.com/patent/US11482230B2/en

Tutoring Experience
1. Intensive Course Tutor for Samsung Design Membership | *Feb.2024 ~ Mar.2024*
- Tutoring the undergraduate students of Samsung Design Membership, especially regarding UI/UX methodologies and Strategic Planning.

2. Tutoring highschool students during the Research Associate Period (Jenny Sabin Lab (JSLab), Cornell University) | *May.2022 ~ Aug.2022*
- Tutored high school students to get to know of and experience SULLA and PotterBot extrusion; also tutored parametric modeling and its methodologies.

Recognitions
Winner - Good Design Selection Award 2020, KIDP (Korea Institute of Design Promotion) | *Nov.2020*]
- Project: SmartThings' Home Environment Control (a service bundle of SmartThings Air & SmartThings Energy)
- Participated as a UI designer and graphic designer

[Reddot Winner - Reddot Design Award: Communication Design 2017 | *Aug.2017*]

- Project: Samsung Interactive Table for Samsung Galaxy S8 New York Unpack 2017

[Gold Winner - A Design Award 2017 | *Apr.2017*]
- Project: P-GUI Sticker (interim outcome from my personal thesis project - Interplayable Surface)

[Winner - K Design Award'17 | *May.2017*]
- Project: Flou

[Winner - Asia Design Prize 2017 | *May.2017*]
- Project: Watertank Wheel

[Bronze - SparkAwards 2014 | *Dec.2014*]
- Project: Medical Assist Band

[Finalist - SparkAwards 2014 | *Dec.2014*]
- Project: Fishbowl Basin

[Bronze - Pin Upp Concept Design Awards 2013 | *Oct.2013*]
- Category: Healthcare Design sponsored by Samsung Electronics
- Project: Pill Clip

[Reddot Winner - Reddot Design Award 2013 | *Aug.2013*]
- Project: Flexi Bike

[Grand Prize, GM Korea Student Automotive Challenge 2012 | *May.2012*]

[Seokrim Scholarship | *Sep.2008*]
- Awarded by Seokrim Scholarship Committee, Korea University

Press (highlighted)

Featured in "Best Designed By Doing: Radical Hybrid Thinking Across Disciplines"
https://aap.cornell.edu/news-events/best-designed-doing-radical-hybrid-thinking-across-disciplines
SmartThings Air - Promotion Video(only available in South Korea)
https://www.youtube.com/watch?v=Nf-9YTQQ7VQ
SmartThings Air - SmartThings Plugin(Ver. 2.0) introduction
https://www.smartthings.com/partners/smartthings-air
Featured in Samsung Newsroom, UNESCO - Samsung Hack Culture _ Digital Solutions to Empower Woman and Safeguard Traditional Crafts)'
http://bit.ly/30L9JOc
Samsung and UNESCO Host a Digital Solution Hackathon to Help Ethnic Minority Women Safeguard Traditional Crafts
https://www.ryt9.com/en/prg/231129
Project "Flexi-Bike" was introduced in "Flexi-Bike With Rotating Frame Allows You to Change Your Riding Posture"
https://www.tuvie.com/flexi-bike-with-rotating-frame-allows-you-to-change-your-riding-posture/
Project "Flexi-Bike" was introduced in "THE JOY OF BIKING"
https://www.yankodesign.com/2013/10/17/the- -of-biking/