Yeeun Shin

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RESEARCH INTERESTS

Human-Computer Interaction (HCI), Extended Reality, Human-AI Interaction, Creativity Support

My research explores adaptive AI+XR systems that draw on embodied cognition to support exploratory creative work. I investigate tangible and multimodal interaction techniques that transform instinctive movement into expressive authoring.

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)   *Mar. 2021 – Aug 2023*
M.S. in Industrial Design (Specialization: Human-Computer Interaction)   *Daejeon, Korea*
Graduate Minor in Entrepreneurship & Innovation

- Thesis: *Immersive Authoring Interface with 3D Virtual Controls on Physical Desk*
- Thesis Committee: Woohun Lee, Seok-Hyung Bae, Andrea Bianchi
- Advisor: Prof. Woohun Lee

Pohang University of Science and Technology (POSTECH)   *Mar. 2016 – Feb. 2021*
B.S. in Materials Science and Engineering   *Pohang, Korea*

- Graduated *Cum Laude*

Institut National des Sciences Appliquées de Lyon (INSA Lyon)   *Aug. 2019 - Jan. 2020*
Exchange Student, Materials Science and Engineering   *Villeurbanne, France*

PUBLICATIONS

Peer-reviewed publications in top-tier venues for HCI and interactive techniques. (equal contribution)*

[5] Desk Console: Augmenting 3D Virtual Controls on Physical Desks for Immersive Authoring
Yeeun Shin, Seung Hyeon Han, Woohun Lee
In *ACM CHI Conference on Human Factors in Computing Systems (CHI '25 Interactivity)*

🏆 Student Game Competition Finalist
[4] Spatial Chef: A Spatial Transforming VR Game with Full Body Interaction
Yeeun Shin*, Yewon Lee*, Sungbaek Kim*, Soomin Park*
In *ACM CHI Conference on Human Factors in Computing Systems (CHI '23 SGC)*

🏆 Best in Show Honorable Mention
[3] WonderScope: Practical Near-surface AR Device for Museum Exhibits
HyeonBeom Yi, **Yeeun Shin**, Sehee Lee, Eunhye Youn, Auejin Ham, Geehyuk Lee, Woohun Lee
In *ACM SIGGRAPH 2022 Emerging Technologies*

[2] ProjecString: Turning an Everyday String Curtain Into an Interactive Projection Display
Wooje Chang*, **Yeeun Shin***, Yeon Soo Kim*, Woohun Lee
In *ACM SIGGRAPH 2022 Posters*

[1] ChromoFilament: Designing a Thermochromic Filament for Displaying Malleable States
Donghyeon Ko, **Yeeun Shin**, Junbeom Shin, Jiwoo Hong, Woohun Lee
In *ACM Designing Interactive Systems Conference (DIS '22)*

AWARDS & HONORS

- **Student Game Competition Finalist** | ACM CHI   *2023*
- **Emerging Technologies Best in Show Honorable Mention (Top 3)** | ACM SIGGRAPH   *2022*
- **iF Design Award – Winner in UX** | iF Design   *2023*
- **1st Place, AI Idea Competition** | LG CNS   *2018*
- **National Merit Scholarship for Science and Engineering** | Korea Student Aid Foundation   *2018*
- **Highest Academic Achievement Scholarship** | POSTECH   *2018*
- **Academic Excellence Scholarship** | POSTECH   *2018*

RESEARCH EXPERIENCE	**Research Assistant** | WonderLab, KAIST	*Mar. 2021 – Aug 2023*
	Advised by Prof.Woohun Lee	*Daejeon, Korea*

- **Tangible XR Interfaces to Support Embodied Creativity**
  Led design of XR authoring interface augmenting virtual panels as spatial controls on physical desks; identified workflow gaps via contextual inquiry and evaluated user behaviors; demoed at CHI '25 [5].

- **Interactive Materials for Creative Fabrication**
  Developed thermochromic filament that visualizes malleable states to support creative decisions during fabrication; derived color mappings in perception workshops and evaluated effects in user studies [1].

- **Multimodal Interaction for XR Systems**
  - *NRF-funded:* Developed multimodal near-surface AR applications using sensor-fusion tracking data responsive to user movement; deployed interactive prototypes in museums [3].
  - *Samsung-funded:* Designed inclusive XR interactions via participatory design and expert interviews; developed gesture-based interfaces for AR glasses using Figma and Unity.

Visiting Researcher | HCI Lab, KAIST	*Jan. 2022 – Apr 2022*
Advised jointly by Prof.Geehyuk Lee and Prof.Woohun Lee	*Daejeon, Korea*

- Led interaction design and derived micro-gesture heuristics for vision-based gestural input systems.

PROFESSIONAL EXPERIENCE	**AI Interaction Designer** | Samsung Electronics	*Jan. 2024 – Present*
		Seoul, Korea

- Designed and deployed a Gemini-powered conversational AI interface for smart TVs, leading user research and interaction design; inventor on 8 AI interaction patents.
- Conducted human-AI interaction research by prototyping a web app that visualizes LLM reasoning to support participatory decision-making with AI agents.

UX Intern | MXXR	*Nov. 2020 – Mar. 2021*
	Seoul, Korea

- Led onboarding UX flow for mobile AR app with camera-based spatial sensing.

Software Engineering Intern | LG CNS Research Center	*Jun. 2018 – Aug. 2018*
	Seoul, Korea

- Built an Android smartwatch app for real-time factory task tracking, integrating BLE beacon sensing with a Node.js backend for context-aware UI.

Interactive Prototyping Intern | Geekble	*Jan. 2018 - Feb. 2018*
	Seoul, Korea

- Developed sensor-integrated Arduino prototypes embedded in everyday objects detecting user motion for context-aware interaction.

ACADEMIC ACTIVITIES

EXHIBITION & PRESENTATION

- Presenter, CHI Interactivity Demo	*Japan 2025*
- Presenter, CHI Student Game Competition	*Germany 2023*
- Presenter, SIGGRAPH Emerging Technologies Demo	*Canada 2022*
- Selected Poster Presenter, SIGGRAPH Art Papers Roundtable	*Canada 2022*
- Research Featured on KBS, MBC, TJB (National Broadcasting)	*2022*
- Research Exhibitor, Korea National Science Museum Special Exhibition	*2022*
- Research Exhibitor, Korea National Science Museum Living Lab	*2021*
- Research Exhibitor, Gwacheon National Science Museum	*2021*

SERVICE & TEACHING

- Reviewer (CHI 2026), Student Volunteer (TEI 2022)
- Teaching Assistant, Design Entrepreneurship (KAIST ID402)

SKILLS	**Programming**	Unity3D (C#), JavaScript/TypeScript, Python, C, C++, Java, HTML, CSS, Git, Gemini API
	Prototyping	Oculus SDK, XR Interaction Toolkit, Arduino, Raspberry Pi, Processing, 3D Printing, Laser Cutting, CNC, Rhino/Grasshopper, Figma, Sketch, Adobe CC
	Research	**(qualitative)** Contextual Inquiry, Focus Group, User Study Design, Thematic Analysis **(quantitative)** Statistical & Data Analysis (SPSS, Python, SQL)