

JIIN CHOI

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RESEARCH INTEREST

My work lies at the intersection of human–computer interaction (HCI) and artificial intelligence (AI), focusing on **interactive intent alignment for design-space exploration**. Specifically, I study how to decompose user prompts, interaction logs, and model responses into design elements that enable users to (1) iteratively refine their intents to guide GenAI-driven design tools, and (2) audit and steer the model’s behavior to ensure it aligns with those intents and supports better user experience in individual cognitive space.

EDUCATION

Mar 2023 - Present

Ph.D. & Master's Integrated Degree: Interior Architecture Design
Hanyang University, Seoul

Mar 2018 - Feb 2023

Bachelor's Degree: Interior Architecture Design
Hanyang University, Seoul

Minor: Computer Science
Hanyang University, Seoul

PUBLICATIONS

Conference and Journal Papers

[C2] GenPara: Enhancing the 3D Design Editing Process by Inferring Users' Regions of Interest with Text-Conditional Shape Parameters
CHI 2025: Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems.

[C1] The impact of sketch-guided vs. prompt-guided 3D generative AIs on the design exploration process
CHI 2024: Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems.

Journal Papers

[J3] BOgen: Generating part-level 3d designs based on user intention inference through bayesian optimization and variational autoencoder
arXiv preprint arXiv:2312.02557

[J2] CMLsearch: Semantic visual search and simulation through segmented colour, material, and lighting in interior image
Journal of Computational Design and Engineering 12 (1), 179-29

[J1] Typeface network and the principle of font pairing
Scientific Reports 14 (1), 30820

Posters, Demos, and Workshop Papers

[D1] Toward AI-driven Multimodal Interfaces for Industrial CAD Modeling
CHI 2024 Workshop on Bridging HCI and Industrial Manufacturing

EXPERIENCE

| | |
|---------------------|---|
| Feb 2023 - Oct 2022 | <p>Research Intern Design Informatics Lab, Seoul</p> <p>Collected and cleaned project data (images, logs, surveys), structured it into a schema/DB, and conducted statistical and qualitative analyses with visualizations to produce actionable reports.</p> |
| Jul 2019 - Aug 2022 | <p>Design Intern One Day One Communication, Seoul</p> <p>Ran user research to capture requirements, produced wireframes/mockups/prototypes, and structured and analyzed usability findings to deliver design recommendations.</p> |
| Jul 2020 - Dec 2020 | <p>Architecture / Interior Design Intern Arch architects, Seoul</p> <p>Produced CD sets and detail drawings, organized spec/schedule sheets, and coordinated code/consultant updates for build-ready documentation.</p> |
| TEACHING | <p>Design Computing Spring 2025 HOM4025, Teaching Assistant Hanyang University Instructor: Kyung Hoon Hyun</p> <p>Design Computing Spring 2024 HOM4025, Teaching Assistant Hanyang University Instructor: Kyung Hoon Hyun</p> <p>Design Computing Spring 2023 HOM4025, Teaching Assistant Hanyang University Instructor: Kyung Hoon Hyun</p> |
| PATENTS | <p>METHOD AND SYSTEM FOR GENERATING ADVERTISING CONTENT (광고 콘텐츠 생성 방법 및 시스템) Kyung Hoon Hyun, Seung Won Lee, Jiin Choi, Yugyeong Jang Korea Patent Application 10-2025-0070339 Filed on 2025.05.29</p> <p>3D Design Trade-off Optimization Support System (3D 형태 편집에서 다목적 선호도 베이지안 최적화를 통한 디자인 선호도 트레이드 오프의 균형을 지원하는 시스템 및 그 방법) Kyung Hoon Hyun, Seung Won Lee, Jiin Choi Korea Patent Application 10-2025-0053863 Filed on 2024.04.24.</p> <p>Text-Conditional Shape Parameter Utilization System for Inferring Design Preferences in 3D Design Space (3D 디자인 공간 속 디자인 선호 추론을 위한 텍스트 조건부 형상 매개변수 활용 시스템) Kyung Hoon Hyun, Jiin Choi, Seung Won Lee Korea Patent Application 10-2024-0054885 Filed on 2024.04.24.</p> <p>3D Shape Manipulation Method and System with Multi-objective Preference Bayesian Optimization (다목적 선호도 베이지안 최적화 기반 3D 형상 편집 시스템 및 그 방법) Kyung Hoon Hyun, Seung Won Lee, Jiin Choi Korea Patent Application 10-2024-0054886 Filed on 2024.04.24.</p> <p>Method of Generating Design Based on User Preference Kyung Hoon Hyun, Seung Won Lee, Jiin Choi US Patent Application 18411182</p> |

Filed on 2024.01.12.

METHOD AND APPARATUS FOR PROVIDING INTERIOR PRODUCT SEARCH SERVICE

(인테리어 제품 검색 서비스 제공 방법 및 장치)

Kyung Hoon Hyun, Semin Jin, Jiin Choi

Korea Patent Application 10-2023-0171111

Filed on 2023.11.30.

Design Generation Method Based on User Preference

(사용자 선호도 기반의 디자인 생성 방법)

Kyung Hoon Hyun, Seung Won Lee, Jiin Choi

Korea Patent Application 10-2023-0159030 / 10-2792802

Registered on 2024.04.03.

ACADEMIC
SERVICES

Reviewer CHI 2025. UIST 2025.

WEB & SOCIAL

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