



Hi! I'm HyunA Seo

I design Mixed/Cross Reality systems that seamlessly bridge the virtual and real worlds. My goal is to break the boundaries of space and time, enabling new realities to offer novel experiences integrated into everyday life. Enriching and bringing more joy to people's lives would be my ultimate achievement!

hyuna.seo@hcs.snu.ac.kr <https://hyunaseo.github.io/>

Research Interests

Mixed/Cross Reality Systems, Context-aware Adaptive Computing, Generative AI in MR

Education

Seoul National University

Mar. 2021 - Present

M.S./Ph.D. student in Computer Science and Engineering

Advisor: Youngki Lee

Hanyang University

Mar. 2016 - Feb. 2021

B.S. in Computer Science and Engineering

Publications: Conference Papers

GradualReality: Enhancing Physical Object Interaction in Virtual Reality via Interaction State-Aware Blending

HyunA Seo, Juheon Yi, Rajesh Balan, Youngki Lee

UIST 2024: ACM Symposium on User Interface Software and Technology

Publications: Posters and Workshop Papers

Simultaneous Sporadic Sensor Anomaly Detection for Smart Homes

Hyunwoo Jung, Wootak Kim, HyunA Seo, Youngki Lee

SenSys 2022 Workshop: ACM Conference on Embedded Networked Sensor Systems

LIVE: Life-Immersive Virtual Environment with Physical Interaction-Aware Adaptive Blending

HyunA Seo, Juheon Yi, Youngki Lee

MobiSys 2022 Poster: ACM International Conference on Mobile Systems, Applications, and Services

Patents

Method and Apparatus for Supporting Interaction Between Virtual Environments and the Real World

US 18/932,857 | KR 10-2024-0077055 | EPO 24211098.9 | JP 2024-201312

Grants

Google Conference Scholarship

UIST 2024

MobiSys Student Travel Grant

MobiSys 2022

Academic Achievement Scholarship, Hanyang University

Spring 2019

Academic Services

External Reviewer

ACM IMWUT	2025
ACM CHI Case Study	2025

Work Experiences

Human-Centered Computer Systems Lab, Seoul, Korea Mar. 2021 - Present

Ph.D. student @ Seoul National University

Advisor: Youngki Lee

Research on context-aware adaptive systems to support better Cross Reality interactions

Singapore Management University, Singapore Sep. 2024 - Apr. 2025

Visiting research student

Advisor: Thivya Kandappu, Rajesh Balan

Research on emotion-aware virtual avatar gesture manipulation for social interaction in Mixed Reality

Human-Centered Computer Systems Lab, Seoul, Korea Jul. 2020 - Mar. 2021

Research Intern @ Seoul National University

Advisor: Youngki Lee

Research on transforming the appearance of real-world object into objects that fit a virtual environment using computer vision models

Visual Intelligence Lab, Seoul, Korea Mar. 2019 - Jun. 2020

Research Intern @ Hanyang University

Advisor: Taehyun Kim

Research on deep-learning based super-resolution

Teaching Experiences

Teaching Assistant, Samsung X Seoul National University Apr. 2024

Samsung Data Science Course: Machine Learning (Prof: Youngki Lee)

Teaching Assistant, LG X Seoul National University Feb. 2024

LG Data Science Course: Machine Learning (Prof: Youngki Lee)

Teaching Assistant, Seoul National University Fall 2022

Computer Programming (Prof: Youngki Lee) *over 150 students

Head Teaching Assistant, Seoul National University Fall 2021

Computer Programming (Prof: Youngki Lee) *over 150 students

Skills

Programming Languages: C, C++, C#, Python, Java, JavaScript

Frameworks & Tools: Unity, Android, iOS, Git, Docker

Language: English (fluent), Korean (native)