

Research Interests

Human-Computer Interaction, Visualization, Accessibility, Health & Well-Being Technologies

Education

MS/PhD	University of Massachusetts Amherst , Computer Science <ul style="list-style-type: none">GPA: 4.0/4.0	Amherst, MA, USA Sep 2024 - Present (Expected Jun 2029)
BS	Sungkyunkwan University , Computer Science and Engineering <ul style="list-style-type: none">GPA: 3.71/4.0 (converted) The University of Texas at Austin , Electrical and Computer Engineering <ul style="list-style-type: none">Exchange student program	Suwon, Korea Mar 2019 - Feb 2024 Austin, TX, USA Jan 2022 - May 2022

Publications

Agentic Accessibility: A New Paradigm for Graphics Accessibility for Blind and Low-Vision [🔗](#)

- **Jeongah Lee**, Srikiran Kavuri, Hari Iyer, Ali Sarvghad
- ACM CHI Under Review

SVG Decomposition for Enhancing Large Multimodal Models Visualization Comprehension [🔗](#)

- **Jeongah Lee**, Ali Sarvghad
- ACM CHI Under Review

From Text to Visuals: Using LLMs to Generate Math Diagrams with Vector Graphics [🔗](#)

- Jaewook Lee, **Jeongah Lee**, Wanyong Feng, Andrew Lan
- AIED 2025: 26th International Conference on Artificial Intelligence in Education (Acceptance rate: 19%)

IoT Edge-Cloud: An Internet-of-Things Edge-Empowered Cloud System for Device Management in Smart Spaces [🔗](#)

- Yoseop Joseph Ahn, Minje Kim, **Jeongah Lee**, Yiwen Shen, Jaehoon Paul Jeong
- 2023 IEEE Network Magazine

Research Experiences

HCI-VIS lab, WHAT lab @ University of Massachusetts Amherst , Graduate Research Assistant <ul style="list-style-type: none">• Advisor: Dr. Ravi Karkar 🔗, Dr. Ali Sarvghad 🔗• Designed and developed human-centered AI systems that advance accessibility and well-being• Led research on AI-driven mental health tools for Alzheimer's caregivers, integrating journaling, conversational interaction, and cognitive reframing (CBT) support• Led research on AI-assisted visualization authoring tools enabling interactive creation and refinement of data graphics	Amherst, MA, USA Sep 2024 - Present
IoT lab @ Sungkyunkwan University , Undergraduate Student Researcher <ul style="list-style-type: none">• Advisor: Dr. Jaehoon Paul Jeong 🔗• Developed an IoT edge-empowered Cloud System for the visual control of IoT devices in a user's smart-phone	Suwon, Korea Jul 2021 - Nov 2021

Work Experiences

Seoul National University Bundang Hospital , Natural Language Processing (NLP) Researcher <ul style="list-style-type: none">• Developed a model predicting lung cancer TNM stage using an Electronic Health Record dataset• Fine-tuned Large Language Models (LLMs) in resource-restricted settings, optimizing model performance through tailored prompt engineering techniques	Bundang, Korea Mar 2024 - Jul 2024
Cipherome, Inc , Machine Learning (ML) Engineer, Intern <ul style="list-style-type: none">• Developed the pipeline for an ML module within a clinician-focused medical data analysis platform• Designed Figma wireframes to improve the platform's user interface and experience (UI/UX)	San Jose, CA, USA Mar 2023 - Aug 2023

Naver Boostcamp AI Tech Program , NLP Trainee	Remote
<ul style="list-style-type: none"> Led projects on semantic text similarity, relation extraction, open-domain question answering, and chatbot development tasks 	Sep 2022 – Feb 2023
SK Planet Co.,Ltd. , Industry-Academic Cooperation Student Researcher	Suwon, Korea
<ul style="list-style-type: none"> Developed an AR rhythm game application for the Busan One Asia Festival using AR Core to provide location-based interactive experiences 	Mar 2020 - Dec 2020

Awards & Honors

[Awards]

3 rd Place (Grand Prize), Chung-ang University AI and Humanities Academic Paper contest	Jan 2023
1 st Place (Grand Prize), Kookmin University self-driving contest	Jul 2021 - Nov 2021
3 rd Place (Grand Prize), Sungkyunkwan University AI x Bookathon contest	Jan 2021
Volunteering Excellence Prize, NIA(National Information Society Agency)	Dec 2020

[Scholarships]


Academic Excellence Scholarship (top 12%)	2022
Creative Scholarship (100% tuition support)	2021
Sungkyun Software Scholarship (100% tuition support)	2019
MegastudyEdu Scholarship (external)	2019

Teaching & Mentoring

[Teaching]

Graduate Teaching Assistant	Sep 2024 - Present
<ul style="list-style-type: none"> <i>CICS 110: Introduction to Programming (Fall 2024)</i> Led two lab sessions (60 students each) with hands-on instruction and grading support. <i>CS 383: Artificial Intelligence (Spring 2025)</i> Mentored students in 15 group projects and assisted with assignment design and evaluation (180 students). <i>CS 571: Data Visualization and Exploration (Summer 2025)</i> <i>INFO 348: Data Analytics with Python (Fall 2025)</i> Sole TA for CS 571 (35 students) and INFO 348 (60 students); independently managed grading, office hours, and assignment design. 	

[Mentoring]

Independent Study Mentor	Feb 2025 - May 2025
<ul style="list-style-type: none"> Aishwarya Vishnubhotla, Srikiran Kavuri (CS Undergraduate at UMass), Prachetas Padhi (ECE Master at UMass) Topic: Conversational Accessibility - Enhancing Mobile Usability for Older Adults through Task-Oriented Agents 	
Undergraduate Research Volunteer Program  Mentor	May 2025 - Sep 2025
<ul style="list-style-type: none"> Gerindra Adi, Vidhaan Kothari, Nish Methuku (CS Undergraduate at UMass) Topic: Glanceable Health Visualization for Older Adults Using Large Multimodal Models 	

Volunteering/Leadership

Panama World Friends Korea ICT e-volunteer	Nov 2020 - Dec 2020
Mobile Application Programming Mentoring at Youngbok Girls' High School	Sep 2019 - Dec 2019
College of Computing Student Council	Mar 2019 - Dec 2019

Skills

Technical Proficiencies: Python, Pytorch, JavaScript (React.js, D3.js, Node.js), HTML, CSS, MongoDB
Research Methodologies:
Qualitative: User Research, Semi-Structured Interviews, Prototyping, Usability Testing, Think-Aloud Protocol, Thematic Analysis
Quantitative: Survey Design, Experimental Design, Statistical Analysis, Modeling, Visualization Analysis
Tools & Platforms: Git, GitHub, Vercel, Render, Capacitor, Docker, Figma, Zeplin