

# Jeongah Jasmine Lee

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[🔗 Personal Website](#)

[in Linkedin](#)

[G Google Scholar](#)

## Research Interests

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

## Education

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**MS/PhD** **University of Massachusetts Amherst**, Computer Science

- GPA: 4.0/4.0

**Amherst, MA, USA**

Sep 2024 - Present  
(Expected Jun 2029)

**BS** **Sungkyunkwan University**, Computer Science and Engineering

- GPA: 3.71/4.0 (converted)

**Suwon, Korea**

Mar 2019 - Feb 2024

**The University of Texas at Austin**, Electrical and Computer Engineering

- Exchange student program

**Austin, TX, USA**

Jan 2022 - May 2022

## Publications

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

- **Jeongah Lee**, Srikanth 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

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**HCI-VIS lab, WHAT lab @ University of Massachusetts Amherst**, Graduate Research Assistant

**Amherst, MA, USA**

Sep 2024 - Present

- 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

**IoT lab @ Sungkyunkwan University**, Undergraduate Student Researcher

**Suwon, Korea**

Jul 2021 - Nov 2021

- Advisor: Dr. Jaehoon Paul Jeong [🔗](#)
- Developed an IoT edge-empowered Cloud System for the visual control of IoT devices in a user's smartphone

## Work Experiences

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**Seoul National University Bundang Hospital**, Natural Language Processing (NLP) Researcher

**Bundang, Korea**

Mar 2024 - Jul 2024

- 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

**Cipherome, Inc**, Machine Learning (ML) Engineer, Intern

**San Jose, CA, USA**

Mar 2023 - Aug 2023

- 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)

**Naver Boostcamp AI Tech Program**, NLP Trainee

Remote

- 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

- 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

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**[Awards]**

- 3<sup>rd</sup> Place (Grand Prize), Chung-ang University AI and Humanities Academic Paper contest Jan 2023
- 1<sup>st</sup> Place (Grand Prize), Kookmin University self-driving contest Jul 2021 - Nov 2021
- 3<sup>rd</sup> 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

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**[Teaching]****Graduate Teaching Assistant**

Sep 2024 - Present

- *CICS 110: Introduction to Programming (Fall 2024)*  
Led two lab sessions (60 students each) with hands-on instruction and grading support.
- *CS 383: Artificial Intelligence (Spring 2025)*  
Mentored students in 15 group projects and assisted with assignment design and evaluation (180 students).
- *CS 571: Data Visualization and Exploration (Summer 2025)*
- *INFO 348: Data Analytics with Python (Fall 2025)*  
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

- 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

- Gerindra Adi, Vidhaan Kothari, Nish Methuku (CS Undergraduate at UMass)
- Topic: Glanceable Health Visualization for Older Adults Using Large Multimodal Models

## Volunteering/Leadership

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**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

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**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