

# Jeongah Jasmine Lee

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🌐 Personal Website

in LinkedIn

G Google Scholar

## Research Interests

Human-Computer Interaction, Artificial Intelligence, Health, Visualization

## Education

**MS/Ph.D University of Massachusetts Amherst**, Computer Science

- GPA: 4.0/4.0

**Amherst, MA, USA**

Sep 2024 - Present

**B.S 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

**From Pixels to Primitives: Evaluating SVG Decomposition for Floor Plan Comprehension in Large Multimodal Models** [↗](#)

- Jeongah Lee**, Ali Sarvghad
- Manuscript in preparation

**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 @ University of Massachusetts Amherst**, Graduate Research Assistant**Amherst, MA, USA**

Sep 2024 - Present

- Advisor: Dr. Ali Sarvghad [↗](#) (co-advised by Dr. Ravi Karkar [↗](#))
- Work in Progress: (1) AI-powered conversational agent for blind and low-vision individuals (BLV) to enhance image accessibility; (2) AI-powered mobile application designed to support caregivers of people with Alzheimer's disease and related dementias (AD/ADRD)

**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 smart-phone

## Work Experiences

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

Mar 2024 - Jul 2024

- Developed a model that predicts lung cancer TNM stage using an Electronic Health Record dataset
- Finetuned 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 user experience and UI/UX

**Naver Boostcamp AI Tech Program**, NLP Engineer**Remote**

Sep 2022 - Feb 2023

- Led projects on Semantic Text Similarity, Relation Extraction, Open-Domain Question Answering, and

**SK Planet Co.,Ltd.**, Industry-Academic Cooperation Student Researcher**Suwon, Korea**

Mar 2020 - Dec 2020

- Developed an AR rhythm game application for the Busan One Asia Festival using AR Core to provide location-based interactive experiences

## 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)*  
Held office hours for a class of 180 students and mentored 15 group projects
- *CS 571: Data Visualization and Exploration (Summer 2025)*

### [Mentoring]

#### Independent Study Mentor

Feb 2025 - May 2025

- Aishwarya Vishnubhotla, Srikanth 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 Program Volunteers

May 2025 - Present

- 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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**Programming Languages:** Python, Pytorch, Javascript, Java, Kotlin, C, C++, R

**Front-End:** HTML, CSS, React.js, D3.js

**Back-End:** Node.js, MongoDB, MySQL

**Tools & Platforms:** Git, GitHub, Vercel, Render, Capacitor, Docker, Figma