

# Callie Yejin Kim

• [cykim6@wisc.edu](mailto:cykim6@wisc.edu) • <https://callie-kim.com/> • [LinkedIn](#)

## EDUCATION

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### PhD, Computer Science

*University of Wisconsin-Madison, 3.55/4.00 cumulative GPA*

Present

*Madison, WI*

Advisor: Dr. Bilge Mutlu

### M.S, Computer Science

*University of Maryland, 3.92/4.00 cumulative GPA*

*College Park, MD*

Advisor: Dr. Huaishu Peng

### B.S, Computer Science and Engineering

*Ewha Womans University, 3.78/4.00 cumulative GPA*

*Seoul, South Korea*

## PUBLICATIONS

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\* indicates equal contribution

**Kim, C.**, White, N., He, E., Sala, F., & Mutlu, B. RoboCritics: Enabling Reliable End-to-End LLM Robot Programming through Expert-Informed Critics, In ACM/IEEE *Human Robot Interaction (HRI 26)*. 23.2% Acceptance Rate

**Kim, C.**, Sato, A., White, N., Ho, H., Lee, C., Hwang, Y., & Mutlu, B. Bridging Generations using AI-Supported Co-Creative Activities, In ACM *Human Factors in Computing Systems (CHI 25)*. Honorable Mention Award 24.9% Acceptance Rate

**Kim, C.\***, Lee, C.\* , & Mutlu, B. Understanding Large-Language Model (LLM)-powered Human-Robot Interaction, In ACM/IEEE *Human Robot Interaction (HRI 24)*. 24.7% Acceptance Rate

**Kim, C.**, Shin, I., Jung, H. (2018) Implementation of Google Cardboard Based VR Simulator for Disaster Evacuation Training, In *Proceedings of Korea Multimedia Society*

## RESEARCH EXPERIENCES

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### Graduate Research Assistant - *People and Robots Laboratory*

*Madison, WI*

Advisor: Dr. Bilge Mutlu

Sep 2021 - Present

- Conducted research on end-user robot programming and task specification, designing systems that enable non-expert users to effectively specify, verify, and refine robot behaviors.
- Developed a robotics framework combining LLM-based task specification with expert-informed motion-level critics to improve the reliability of robot behaviors.

- Evaluated a block-based robot programming system in community workshops, studying paired end-user workflows.

**University of Maryland - Dept. of Computer Science**

College Park, MD

Advisor: Dr. Huaishu Peng

July 2020 - May 2021

- Designed and fabricated wearable VR haptic prototypes using CAD-designed silicone components integrated into custom masks to support accessible spatial understanding.

## TEACHING EXPERIENCE

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**Lecturer**, University of Wisconsin-Madison, CS502: Theory & Practice of CS Education (Sept 2025)

**Teaching Assistant**, University of Wisconsin-Madison, CS400: Programming III (Jan 2022 - Spring 2025); CS537: Intro to Operating Systems (Aug 2021 - Dec 2021)

**Teaching Assistant**, University of Maryland, CMSC425: Game Programming (Aug 2020 - May 2021)

## INVITED TALKS

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October 12th, 2024, Large-Language Models (LLM) for Human-Robot Interaction. Mentorship Program on HRI and Robot Learning, *University of Virginia*

## PATENT

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Sangsoo Park, Callie Y. Kim, Ina Shin, and Hyunkyung Jung. Virtual Reality Based Disaster Education Method, Device and Computer Readable Medium for Performing the Method. KR Patent Application No. 1020180160585, Registration No. 1021139260000

## SERVICES

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**Conference Review:** CHI, UIST, HRI, ICRA, IEEE VR

**Journal Review:** IEEE Transactions on Human-Machine Systems

**Grandparents University**, Instructor, University of Wisconsin-Madison

Annually: July 2022, 2023, 2024

**'KING' Video Game Development Club**, Vice President, Ewha Womans University

## SKILLS

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**Research Methods:** System Prototyping, Participatory Design, Semi-Structured Interviews, Community workshops, Thematic Analysis, Surveys, Mixed-Methods Evaluation

**Programming Languages:** Python, Java, C#, Javascript, React, HTML, CSS, Swift

**Tools and Frameworks:** React, ROS, Gazebo, RViz, Unity, Flask, Docker, PyTorch, LangChain

**AI Techniques and Computational Methods:** Large Language Models, Computer Vision (Object Detection), AR/VR