

Christine P. Lee

Computer Sciences Department
University of Wisconsin–Madison
1210 W. Dayton St.
Madison, WI 53706-1613

Email: cplee5@cs.wisc.edu

Phone: 608-504-1266

Website: <https://christineplee.github.io/>

RESEARCH INTERESTS

My research centers around technical methods aimed at enhancing the explainability and adaptability of AI systems in real-world applications, with a strong focus on **human-centered** and **context-aware systems**. These methods primarily involve formal **Programming Language (PL) techniques** and are applicable to a range of agents, including robots, and various contexts, such as in-home and workplace environments.

EDUCATION

PhD	University of Wisconsin–Madison (UW–Madison), Madison, WI, USA Computer Sciences	2022 - Present
MS	University of Wisconsin–Madison (UW–Madison), Madison, WI, USA Computer Sciences	2020 - 2022
BS	Sejong University, Seoul, South Korea Computer Sciences	2015 - 2020
	University of California–San Diego, San Diego, CA, USA Computer Sciences (Study Abroad Exchange Student)	2018

WORK & RESEARCH EXPERIENCE

Doctoral Research UW–Madison, Madison, WI, USA Computer Sciences Advisor: Dr. Bilge Mutlu	2020 - Present
Research Intern Seoul National University Hospital Biomedical Research Institute, Seoul, South Korea Mentor: Dr. Taehoon Ko	Jan 2020 - July 2020
Undergraduate Research Sejong University, Seoul, South Korea Computer Sciences and Engineering Advisor: Dr. Hyun-Joon Moon	2019 - 2020

REFEREED FULL PAPERS

Lee, C.*, Kim, C.*, & Mutlu, B. Understanding Large-Language Model (LLM)-powered Human-Robot Interaction. (* indicates equal contribution) *Under Review at HRI 2024*

Lee, C., Praveena, P., Fu, H., & Mutlu, B. rEX: Repairs and Explanations for Conflicts in Robot Programs. *Under Review at CHI 2024*

Lee, C., Lee, M.K., & Mutlu, B. The AI-DEC: Supporting Context-tailored AI Explanation Design. *Under Review at CHI 2024*

Lee, C., Lee, M.K., & Mutlu, B. Worker Experiences with AI at Work. *Under Review at CSCW 2024*

Lee, C., Cagiltay, B., & Mutlu, B. (2022). The Unboxing Experience: Exploration and Design of Initial Interactions Between Children and Social Robots. In *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems* [Honorable Mention (Top 131 in 2597)] Acceptance rate: 25%

Kim, H.K., Choi, S.W., Bae, Y.S., Choi, J., Kwon, H., Lee, C., Lee, H.-Y., Ko, T. (2020). MARIE: A Context-Aware Term Mapping with String Matching and Embedding Vectors. In *Proceedings of the Appl. Sci. 2020, 10, 7831*

Nam, J., Lee, C., Patankar, A.A., Wang, H., Li, Y., and Moon, H. (2019). Object Classification for Domestic Waste based on Convolutional Neural Networks. In *Proceedings of the Korean Institute of Broadcast and Media Engineers Fall Conference*

Jung, J.Y., Lee, C., Kim, J.H., Kim, S.I., Kim, J.I., Kong, H.S., Lee, Y.B., and Lee, Y.L., Kang, J.W. (2018). Increasing Video Compression Efficiency using Residual Data Distribution and Transform. In *Proceedings of the WISER Junior Science & Technology Research Reports, Vol. 1, pp. 350-354*

REFEREED SHORT PAPERS

Lee, C., Cagiltay, B., Sullivan, D., & Mutlu, B. (2023). Demonstrating the Potential of Interactive Product Packaging for Enriching Human-Robot Interaction. In *Proceedings of the 2023 ACM/IEEE International Conference on Human-Robot Interaction (HRI)*

SCHOLARSHIPS, HONORS, AND AWARDS

Honorable Mention (Top 131 in 2597) ACM/SigCHI Human Factors in Computing (CHI 2022) Lee, C.; Cagiltay, B.; Mutlu, B. <i>The Unboxing Experience: Exploration and Design of Initial Interactions Between Children and Social Robots</i>	2022
UW-Madison CS Department Summer Research Assistant Award Chosen as one of 15 students in the Computer Science department based on faculty nomination	2021
Pitt Challenge Hackathon Awarded 3rd place during Hackathon hosted by University of Pittsburgh	2020
Dean's List with Distinction Awarded for academic excellence	2017 Spring - 2019 Fall
Sejong Global Excellence Scholarship Awarded scholarship to study abroad at the University of California-San Diego	2018

TEACHING EXPERIENCE

CS 354 Machine Organization and Programming, Teaching Assistant, UW-Madison Duties: Coached C programming, data structures, and algorithm assignments for a course of 400+ students	Fall 2020, Spring 2021
C-Programming, Teaching Assistant, Sejong University Duties: Guided students on programming and software design for a course of 120+ students	Spring 2017, Spring 2018

TECHNICAL SKILLS

Programming

Python (Keras, Tensorflow, Jax, PyTorch), C, C#, ROS, Java, Javascript, HTML, Arduino

Research Methods

Quantitative Analysis, Qualitative Analysis, Participatory design, Rapid Prototyping

Language

English (native), Korean (native)