

HITA KAMBHAMETTU

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EDUCATION

University of Pennsylvania

PhD in Computer Science

Advisor: Andrew Head

August 2022 - Present

Carnegie Mellon University

B.S. in Information Systems

Minors in Computer Science, Machine Learning

August 2018 - May 2022

RESEARCH INTERESTS

Human-AI interaction and healthcare. In particular, using large language models and other emerging technologies to help patients fluidly navigate information during their diagnostic journey.

RESEARCH EXPERIENCE

Penn Human Computer Interaction Lab (UPenn)

Advisor: Andrew Head

September 2022 - Present

- **Research Focus:** Medical HCI, with a focus on how to leverage large language models to make medical information more accessible to patients
- **Ongoing Work:** Leading a project investigating how intelligent interfaces can help patients better understand their medical progress notes; Leading a project examining how to enhance LLMs' accuracy in clinical communication
- **Relevant Past Work:** Designed and conducted an in-lab usability study to evaluate SCIM, an automatic research paper highlighting tool; Investigated how to evaluate FFL: a markup language for augmenting formulas

Program Analysis, Software Testing, and Applications Lab (CMU)

Advised by Rohan Padhye and Vincent Hellendoorn

June 2021 - May 2022

- **Research Focus:** To investigate whether fuzzer-generated code is unpredictable relative to human-written code
- **Relevant Past Work:** Conducted an analysis using a large language model to investigate how natural compiler fuzzer-generated test cases are

Human-Centered Robotics Lab (UW)

Advised by Maya Cakmak

December 2020 - May 2022

- **Research Focus:** To study how to design an end-user robot programming system that best supports how users naturally express what they want the robots to do
- **Relevant Past Work:** Conducted a formative interview study analyzing mental models of end users programming with a social robot

PUBLICATIONS

Zhiyuan Wu, Jiening Li, Kevin Ma, **Hita Kambhamettu**, Andrew Head. "FFL: A Language and Live Runtime for Styling and Labeling Typeset Math Formulas." ACM Symposium on User Interface Software and Technology (UIST) 2023.

Raymond Fok, **Hita Kambhamettu**, Luca Soldaini, Jonathan Bragg, Kyle Lo, Marti A. Hearst, Andrew Head, Daniel S. Weld. "Scim: Intelligent Skimming Support for Scientific Papers." ACM Conference on Intelligent User Interfaces (IUI) 2023.

Hita Kambhamettu, John Billos, Carolyn Oluw Oluwaseun-Apo, Rohan Padhye, Vincent Hellendoorn "On the Naturalness of Fuzzer-Generated Code" Proceedings of the 19th International Conference on Mining Software Repositories (MSR) 2022.

Hita Kambhamettu, Michael Jae-Yoon Chung, Vinitha Ranganeni, Patrícia Alves-Oliviera "Collecting Insights about How Novice Programmers Naturally Express Programs for Robots" Workshop on the intersection of HCI and PL (PLATEAU) 2022.

Hita Kambhamettu "A Vision-Based Method for Non-Invasive Respiration Rate Monitoring" IEEE Applied Imagery Pattern Recognition Workshop (AIPR) 2021.

Yunzhi Li, **Hita Kambhamettu**, Yidan Hu, Rui Zhang "ImPos: An Image-Based Indoor Positioning System" IEEE Annual Consumer Communications & Networking Conference (CCNC) 2022.

TEACHING EXPERIENCE

University of Pennsylvania

Teaching Assistant

- CIS4120: Introduction to Human-Computer Interaction

Fall 2023

Instructor: Danaë Metaxa

Carnegie Mellon University

Teaching Assistant

- 15-494/694: Cognitive Robotics
- 67-364: Practical Data Science
- 17-313: Foundations of Software Engineering
- 15-110: Principles of Computing
- 15-110: Principles of Computing

Spring 2022

Spring 2022

Fall 2021

Spring 2021

Fall 2020

SERVICE/OUTREACH

CIS Office Committee Member

Coordinate office assignments for CIS Ph.D. students and postdocs.

May 2023 - Present

AEOP Summer Apprenticeship Mentor

Mentored the research of a high school apprentice.

May 2023 - August 2023

Penn GEMS Instructor

Taught a class on conversational agents to Philadelphia middle school students.

May 2023 - July 2023

AWARDS

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|----------------------------|------|
| NSF GRFP Honorable Mention | 2023 |
| NSF REU Scholarship | 2022 |

TECHNICAL SKILLS

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| Programming Languages | Python, HTML/CSS, Javascript, Coq |
| Tools | L ^A T _E X, Pytorch, Git |