Yuhan Luo

Ph.D. Candidate in Information Studies

University of Maryland, College Park
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Personal Website: Link
Google Scholar: Link

RESEARCH STATEMENT

I am a Human-Computer Interaction (HCI) researcher working at the intersection of Personal Informatics, Health Informatics, and Ubiquitous Computing. Motivated by the power of self-tracking to enable positive behavior change through facilitating self-reflection, I design, build, and evaluate multimodal self-tracking systems to support rich, low-burden, and reflective data capture. My dissertation examines how speech input complements the traditional touch input in capturing personal data that are closely related to people's health and well-being, including exercise, food practice, and productivity. Taking a mix of qualitative and quantitative approaches, my work contributes to empirical understandings of how people practice self-tracking using natural language, and provides practical recommendations for combining multimodal data input to support capturing different types of personal data.

EDUCATION

2017–Present (Expected May 2022)
University of Maryland, College Park, MD
Ph.D. in Information Studies
Thesis: *Promoting Rich and Low-Burden Self-Tracking Through Multimodal Data Input*
Advisor: *Eun Kyoung Choe*
Committee members: *Bongshin Lee, Hernia Kacorri, Beth St. Jean, Philip Resnik*

2015–2017
The Pennsylvania State University, State College, PA
M.S. in Information Sicience & Technology

2011–2015
Southeast University, Nanjing, China
B.E. in Computer Science

EMPLOYMENT

06/2020–08/2020
Facebook (Enterprise People Engineering), Menlo Park, CA
User Experience Researcher Intern
Host: *Dipanwita Dasgupta*

05/2019–08/2019
Google (Android Developer Platform), Mountain View, CA
User Experience Researcher Intern
Host: *Preethi Srinivas*

08/2017–Present
University of Maryland, College Park, MD
Graduate Research Assistant

06/2016–08/2016
Mode Media, Brisbane, CA
User Experience Designer Intern

01/2016–05/2016
The Pennsylvania State University, State College, PA
Graduate Research Assistant

06/2014–08/2014
FASTEM Studio, Nanjing, China
Software Engineer Intern

HONORS AND AWARDS

2021 Dr. Joan Giesecke Health Informatics Fellowship, University of Maryland ($5,000)

2020 iSchool Research Improvement Grants (RIGs), University of Maryland ($1,400)

Outstanding Gradaute Assistant Award (top 2%), University of Maryland

2019 Dean's Award for iSchool Doctoral Student Paper [c4], University of Maryland

HCIL Conference Travel Award, University of Maryland ($700)

Jacob K. Goldhaber Travel Grant, University of Maryland ($600)

2018 iSchool Research Improvement Grants (RIGs), University of Maryland ($1,086)

2017 Selected Attendee in Health Data Exploration (HDE) Summer Institute, San Diego, CA

2014 Outstanding Award in Literary and Artistic Activities, Southeast University

2011 Best Student Debater in the College of Computer Science, Southeast University

PUBLICATIONS

** denotes equal contribution.*

Conference Proceedings (Rigorously Peer Reviewed)

c6 Luo, Y., Kim, Y-H., Lee, B., Hassan, N., Choe, E.K. (2021). **FoodScrap: Promoting Rich Data Capture and Reflective Food Journaling Through Speech Input.** *Proceedings of the ACM Conference on Designing Interactive Systems (DIS '21).* [Acceptance rate: 26.8%]

c5 Luo, Y., Lee, B., Choe, E.K. (2020). **TandemTrack: Shaping Consistent Exercise Experience by Complementing a Mobile App with a Smart Speaker.** *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '20).* [Acceptance rate: 24.3%]

c4 Luo, Y., Liu, P., Choe, E.K. (2019). **Co-Designing Food Trackers with Dietitians: Identifying Design Opportunities for Food Tracker Customization.** *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '19).* [Acceptance rate: 23.8%]

c3 Blair, J.,* Luo, Y.,* Ma, N.F., Lee, S.Y., Choe, E.K. (2018). **OneNote Meal: A Photo-Based Diary Study for Reflective Meal Tracking.** *Proceedings of the American Medical Informatics Association (AMIA '18).*

c2 Luo, Y., Lee, B., Wohn, D. Y., Rebar, A. L., Conroy, D. E., Choe, E.K. (2018). **Time for Break: Understanding Information Workers' Sedentary Behavior Through a Break Prompting System.** *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '18).* [Acceptance rate: 25.7%]

c1 Zhu, H., Luo, Y., Choe, E.K. (2017). **Making Space for the Quality Care: Opportunities for Technology in Cognitive Behavioral Therapy for Insomnia.** *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '17).* [Acceptance rate: 25.0%]

Journal Articles (Rigorously Peer Reviewed)

j3 Mascheroni, A., Choe, E.K., Luo, Y., Marazza, M., Ferlito C., Caverzasio, S., Mezzanotte, F., Kaelin-Lang, A., Faraci F., Puiatti, A., Ratti, PL. (2021). **The SleepFit Tablet Application for Home-based Clinical Data Collection in Parkinson's Disease: User-centric Development and Usability Study.** *JMIR mHealth and uHealth (JMU).* [Impact Factor: 4.31 / 5-Year Impact Factor: 5.32]

j2 Luo, Y., Oh, CY., Jean, B.S., Choe, E.K. (2020). **Interrelationships Between Patients' Data Tracking Practices, Data Sharing Practices, and Health Literacy: Onsite Survey Study.** *Journal of Medical Internet Research (JMIR).* [Impact Factor: 5.03 / 5-Year Impact Factor: 6.00]

j1 Ratti, PL., Faraci F., Hackethal S., Mascheroni A., Ferlito C., Caverzasio S., Amato N., Choe E.K., Luo, Y., Nunes-Ferreira P.E., Galati S., Puiatti A., Kaelin-Lang, A. (2019). **A New Prospective, Home-Based Monitoring of Motor Symptoms in Parkinson's Disease.** *Journal of Parkinson's Disease (JPD).* [Impact Factor: 3.70 / 5-Year Impact Factor: 3.82]

Doctoral Colloquium Papers (Refereed)

d1 Luo, Y. (2021). **Designing Multimodal Self-Tracking Technologies to Promote Data Capture and Self-Reflection.** *ACM Conference on Designing Interactive Systems (DIS '21) Doctoral Consortium.*

CREATIVE COMPUTING SYSTEMS

cs2 **TandemTrack**. A multimodal system consisting of an Android app and an Alexa skill on Amazon Echo devices to support in-home exercise tracking [c5]. Contributors: Luo Y., Lee B., Choe, EK., Smolyak, D.

cs1 **Time for Break**. A desktop-based application (Windows) that prompts knowledge workers to take regular standing breaks [c2]. Contributors: Luo Y., Lee B., Conroy D.E., Choe, EK.

TEACHING EXPERIENCE

University of Maryland

INST 408D Special Topic: Designing Patient-Centered Technologies
Undergraduate level; Elective; 3 credits; 23 enrollment

- Spring 2021 Instructor of Record
  Responsibilities: designing course materials, giving lectures, moderating seminar discussions, supervising students' group projects on prototype development and report writing

INST 408D Special Topic: Designing Patient-Centered Technologies
Undergraduate level; Elective; 3 credits; worked with *Prof. Eun Kyoung Choe*

- Spring 2020 Graduate Teaching Assistant

The Pennsylvania State University

SRA 468 Visual Analytics
Undergraduate level; Elective; 3 credits; worked with *Prof. Guorui Cai*

- Spring 2017 Graduate Teaching Assistant

IST 454 Cyber Forensics
Undergraduate level; Elective; 3 credits; worked with *Prof. Chao-Hsien Chu*

- Fall 2016 Graduate Teaching Assistant
- Fall 2015 Graduate Teaching Assistant

STUDENT MENTORSHIP

Spring 2021 **Abhinav Reddy Vedmala** (Undergraduate Student, UMD Computer Science)
Implementing a multimodal self-tracking app to support speech and touch input.

Spring 2019 **Lily Huang** (Undergraduate Student, UMD iSchool)
Reviewing study protocols and pilot testing for a research study on multimodal exercise tracking.

Summer 2018 **Peiyi Li** (Master Student, UMD iSchool)
Conducting co-design sessions with registered dietitians and data analysis, co-authored [c4].

SERVICE

Program Committee

CHI Late-Breaking Work Associate Chair (2019)

Conference Reviewer

ACM Conference on Human Factors in Computing Systems (CHI) 2019-2021

ACM Conference on Designing Interactive System (DIS) 2021

ACM Conference on Interaction Design and Children (IDC) 2020

The Pacific Asia Conference on Information Systems (PACIS) 2020

The Annual Symposium of American Medical Informatics Association (AMIA) 2019

Journal Reviewer

ACM Transactions on Computer-Human Interaction (TOCHI) 2021

ACM Computer-Supported Cooperative Work and Social Computing (CSCW) 2022, 2021

ACM Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) 2018-2020

Journal of Medical Internet Research (JMIR) 2020, 2021

Special Recognition for Outstanding Reviews

CSCW 2021, CHI 2021

Volunteer

ACM Conference on Designing Interactive System (DIS), Student Volunteer (2021)

ACM Conference on Human Factors in Computing Systems (CHI), Executive Committee Volunteer (2018)

Professional and Campus Service

iSchool Faculty Search Committee (2021), Student Member, University of Maryland

TALKS

04/2021 "Designing Multimodal Self-Tracking Technology to Promote Data Capture and Reflection."
Social Data Science Center, University of Maryland.

10/2018 "Personal Data Visualization & Feedback."
Guest Lecture, INST 682/CMSC 838X, College of Information Studies, University of Maryland.

04/2018 "Quantified Cat: Tracking My Cat's Health & Behavioral Data."
Quantified-Self Washington DC Meetup.

REFERENCES

Available upon request.