

MENGYAO LI, *PhD*

Georgia Institute of Technology, School of Psychology
654 Cherry St NW, Atlanta, GA, 30332
mengyao.li@gatech.edu, mengyaoli.me

CURRICULUM VITAE — JANUARY 2024

EMPLOYMENT

Assistant Professor, School of Psychology 2023 - Present
Georgia Institute of Technology, Atlanta, GA
Research Intern, Honda Research Institute, San Jose, CA 2022
Research Intern, Waymo, Mountain View, CA 2021

EDUCATION

University of Wisconsin-Madison, Madison, WI 2019 - 2023
Ph.D. & M.S. in Industrial and System Engineering (Human Factors)
Dissertation: Measure and Manage Trust in Human-AI Conversations
Yonsei University, Seoul, Korea 2016
Summer program in Psychology and Physics
Agnes Scott College, Decatur, GA 2015 - 2018
B.A. in Psychology and Mathematics, *Summa Cum Laude*

GRANTS

SUBMITTED

DARPA OP TEMPO, Bio-Behavioral Team Dynamics Measurement System (BioTDMS)
Period: 2024-2027 Role: co-PI Amount: \$509,612
NASA HRP24 Omnibus, Model Communication Breakdowns in a Distributed Team
Period: 2024-2025 Role: PI Amount: \$300,000

HONORS & AWARDS

HFES Alphonse Chapanis Best Student Paper Award 2022
HFES Student Member with Honors 2022
Best Student Paper, 2nd place in HFES Cognitive Engineering Technical Group 2020
Best Paper Award, AutomotiveUI 2019
Miriam Drucker Award, Agnes Scott College 2019
PSI CHI Regional Research Award, Southeastern Psychological Association 2019
Advantage Award, Agnes Scott College 2018
Emily Dexter Award, Agnes Scott College 2018
Goizueta Foundation STEM Funding, Agnes Scott College 2017
Summit Scholarship, Agnes Scott College 2016
Dean's List, Agnes Scott College 2015 - 2018
International Student Grand, Agnes Scott College 2015 - 2018
Agnes Scott Honor Scholarship, Agnes Scott College 2015 - 2018

PUBLICATIONS

JOURNAL PUBLICATIONS

- J.1. **Li, M.**, Erickson, I., Cross, V., & Lee, J. D. (2023). It's Not Only What You Say, But Also How You Say It: Machine Learning Approach to Estimate Trust in Conversation. *Human Factors*.
- J.2. **Li, M.**, Kamaraj, A.V., & Lee, J.D. (2023). Modeling Trust Dimensions and Dynamics in Human-Agent Conversation: A Trajectory Epistemic Network Analysis Approach. *International Journal of Human-Computer Interaction*, 1-12.

- J.3. Alsaid, A., **Li, M.**, Chiou, E., & Lee, J.D. (2023). Measuring Trust: A Text Analysis Approach to Compare, Contrast, and Select Trust Questionnaires. *Frontier in Psychology*, 14, 1192020.
- J.4. Hughes, J. L., **Li, M.**, McDonnell, E. R. C., Engsberg, E. V., & Goss, C. S. (2019). Invited Editorial: Professors' Research Expectations for Admission to Psychology Graduate Programs. *Psi Chi Journal of Psychological Research*, 24(1).

Submitted and Under Review Papers

- R.1. **Li, M.** & Lee, J.D. (Under review). Purpose outweighs performance: Trust drops more when an AI teammate fails to cooperate, but explanations can repair it. *Computers in Human Behaviors*.
- R.2. **Li, M.** & Lee, J.D. (Under review). Locus of trust: Measured trusting voice can manage people's trust. *Computers in Human Behaviors*.

CONFERENCE PROCEEDINGS

- C.1. **Li, M.**, Mehrotra, S., Akash, K., Misu, T., Lee, J. D. (2023). You Cooperate, I Reciprocate: Well-Being and Trust in Automated Vehicles. *IEEE International Conference on Intelligent Transportation Systems (ITSC 2023)*. (September 24-28, 2023).
- C.2. **Li, M.**, Noejovich S. I., Cross, E.V., Lee, J. D. (2023). Explain Trust Divergence: Bifurcation as A Dynamic System. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. (October 23-27, 2023).
- C.3. Renata, V., Parker, J., Loganathar, S., Kamaraj, A. V., & **Li, M.** (2023). Tossing Your Tylenol: Supporting Sustainable Behavior in Medication Disposal Through Label Design. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. (October 23-27, 2023).
- C.4. Lee, J., Kamaraj, A.V., **Li, M.**, Domeyer, J. E., Toyoda, H., Lee, J.D. (2023). Drivers' Glance Behavior During Driver-Initiated Overrides of L2 Driving Automation: A Comparison Between Intentional and Unintentional Overrides. *Transportation Research Board (TRB) 102nd Annual Meeting*. (January 8-12, 2023).
- C.5. **Li, M.**, Erickson, I., Cross, V., & Lee, J. D. (2022, October). Estimating Trust in Conversational Agent with Lexical and Acoustic Features. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. (October 9-13, 2022). **Alphonse Chapanis Student Paper Award**
- C.6. **Li, M.** & Lee, J.D. (2022, October). Modeling Goal Alignment In Human-AI Teaming: A Dynamic Game Theory Model. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. (October 9-13, 2022).
- C.7. **Li, M.**, Alsaid A. Noejovich S. I., Cross V., Lee J.D. (2020, November). Towards a Conversational Measure of Trust. *Proceedings of AAAI Fall Symposium Series 2020: Trust & Explainability in Artificial Intelligence for Human-Robot Interaction*. (November 13-14, 2020).
- C.8. **Li, M.** Katrahmani, A., Kamaraj, A.V., & Lee J.D. (2020, October). Defining Design Space of the Auto-Mobile Office: A Computational Abstraction Hierarchy Analysis. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. (October 5-9, 2020). **Best CE TG Student Paper**
- C.9. Kamaraj, A.V., Katrahmani, A., **Li, M.**, & Lee J.D. (2020, October). A Data Analytics Approach to Persona Development for the Future Mobile Office. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. (October 5-9, 2020).
- C.10. **Li, M.**, Holthausen, E., Stuck, E., & Walker, N. (2019, September). No Risk No Trust: Investigating Perceived Risk in Highly Automated Driving. *Proceedings of the Eleventh International Conference on Automotive User Interfaces and Interactive Vehicular Applications (AutomotiveUP 2019)*, Utrecht, Netherlands (September 22-25, 2019). **Best Paper Award**
- C.11. **Li, M.**, Engsberg, E. V., McDonnell, E. R., Goss, C. S., & Hughes, J. L. (2019). Research expectations for clinical vs. industrial/organizational and human factors programs. *Southeastern Psychological Association*, Jacksonville, FL. **Best Undergraduate Poster Award**

WORKSHOPS

- W.1. **Li, M.** & Lee, J.D. (2022, April). Exploring Trust Indicators in Human-Agent Conversation with Epistemic Network Analysis. *CHI-TRAIT 2022 (Workshop on Trust and Reliance in AI-Human Teams)*. (April 30, 2022).
- W.2. **Li, M.**, Noejovich, S., Cross, V., Lee, J. D. (2022, February). Trust Divergence as a Dynamic Process. *NASA 2022 Human Research Program Investigators' Workshop (HRP IWS 2022)*. (February 4-10, 2022).
- W.3. **Li, M.**, Erickson, I., Cross, V., & Lee, J. D. (2021, February). Estimating Trust in Human-Agent Conversation. *NASA 2022 Human Research Program Investigators' Workshop (HRP IWS 2021)*. (February 1-4, 2021).
- W.4. **Li, M.** & Lee J.D. (2020, January). Trust in Voice: A Three-Level Conversational Analysis to Measure Trust in Virtual Assistants. *NASA 2020 Human Research Program Investigators' Workshop (HRP IWS 2020)*, Galveston, TX (January 27-30, 2020).

PRESENTATIONS

1. **Li, M.**, Mehrotra, S., Akash, K., Misu, T., Lee, J. D. (2023). You Cooperate, I Reciprocate: Well-Being and Trust in Automated Vehicles. *IEEE International Conference on Intelligent Transportation Systems (ITSC 2023)*. (September 24-28, 2023).
2. **Li, M.**, Noejovich S. I., Cross, E.V., Lee, J. D. (2023). Explain Trust Divergence: Bifurcation as a Dynamic System. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. (October 23-27, 2023).
3. **Li, M.**, Erickson, I., Cross, V., & Lee, J. D. (2022, October). Estimating Trust in Conversational Agent with Lexical and Acoustic Features. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. (October 9-13, 2022).
4. **Li, M.** & Lee, J.D. (2022, October). Modeling Goal Alignment In Human-AI Teaming: A Dynamic Game Theory Model. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. (October 9-13, 2022).
5. **Li, M.**, Alsaid A. Noejovich S. I., Cross V., Lee J.D. (2020, November). Towards a Conversational Measure of Trust. *Proceedings of AAAI Fall Symposium Series 2020: Trust & Explainability in Artificial Intelligence for Human-Robot Interaction*. (November 13-14, 2020).
6. **Li, M.** Katrahmani, A., Kamaraj, A.V., & Lee J.D. (2020, October). Defining Design Space of the Auto-Mobile Office: A Computational Abstraction Hierarchy Analysis. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. (October 5-9, 2020).
7. **Li, M.**, Holthausen, E., Stuck, E., & Walker, N. (2019, September). No Risk No Trust: Investigating Perceived Risk in Highly Automated Driving. *Proceedings of the Eleventh International Conference on Automotive User Interfaces and Interactive Vehicular Applications (AutomotiveUP 2019)*, Utrecht, Netherlands (September 22-25, 2019).

INVITED TALKS

Georgia Tech, School of Psychology, Growing Up in Science	2023
Invited speaker , "Growing Up in Science: Bridging Engineering and Psychology"	
Georgia Tech, Institute of People and Technology	2023
Seminar speaker , "Measure, Model, and Manage Trust in Human-AI Communication and Cooperation"	
Georgia Tech, School of Psychology	2023
Seminar speaker , "Measure, Model, and Manage Trust in Human-AI Communication and Cooperation"	
University of Michigan, Industrial and Operations Engineering	2023
Seminar speaker , "Measure, Model, and Manage Trust in Human-AI Communication and Cooperation"	
Iowa State University, Industrial and Manufacturing Systems Engineering Department	2022
Seminar speaker , "Measure, Model, and Manage Trust in Human-AI Communication and Cooperation"	
George Mason University, Department of Psychology	2022

Seminar speaker, *“Measare, Model, and Manage Trust in Human-AI Communication and Cooperation”*
University at Buffalo, Industrial and System Engineering Department 2022
Seminar speaker, *“Measare, Model, and Manage Trust in Human-AI Communication and Cooperation”*

TEACHING

Georgia Institute of Technology, Atlanta, GA Atlanta, GA
Instructor, PSY 4803/7101 Engineering Psychology I 2024 Spring
Guest Lecturer, PSYC8807 Research Methods for Human Factors and HCI 2023

University of Wisconsin Madison Madison, WI
Delta Certificate in Research, Teaching, and Learning 2020 - 2022
Guest Lecturer, Teaching Assistant, ISyE602: Data Visualization 2022

Agnes Scott College Decatur, GA
Teaching Assistant, CS131: Introduction to Computer Programming 2016 - 2019
Teaching Assistant, CS231: How to Think Like a Data Scientist 2016 - 2019

ADVISING

PH.D. ADVISEES

Emanuel Rojas, 2023 - 2027
Department of Psychology, Georgia Institute of Technology

THESIS COMMITTEE MEMBERS

Reganne Miller, Ph.D., 2022-2028
Title: Pedagogical Agent Preference: Impact on Pedagogical Agent Effectiveness in Two Content Domains

Department of Psychology, Georgia Institute of Technology

Julie Harrison, Ph.D., 2018-2024
Title: Collaborative Problem Solving in Human-Robot Teams
Department of Psychology, Georgia Institute of Technology

Yichen Tang, Ph.D., 2019-2024
Title: Define Quiet Quitting in Teams
Department of Psychology, Georgia Institute of Technology

Huaizhuo Yang, Master, 2021-2024
Title: Designing Autonomous Vehicle (AV) System to Promote Users' Trust in AV
Department of Industrial Design, Georgia Institute of Technology

MASTER STUDENTS

Sarah Seryung Kim (Georgia Tech, Industrial Design) 2023
Isabel Erickson (UW-Madison, ISyE) 2021 - 2022
Joshua Emory (UW-Madison, ISyE) 2021 - 2022

UNDERGRADUATE STUDENTS

Dong Fang (UW-Madison, CS) 2019
Sofia Noejovich (UW-Madison, ISyE) 2020 - 2021
Aditya Tapshalkar (Georgia Tech, CS) 2018 - 2019
Sanghavi Gaddam (Georgia Tech, CS) 2018 - 2019

PROFESSIONAL SERVICE

REVIEWING

Journals

Human Factors	2023 - Present
International Journal of Human-Computer Studies	2023 - Present
Applied Ergonomics	2023 - Present
Frontiers in Psychology	2023 - Present
Risk Analysis	2023 - Present
IEEE Transactions on Human-Machine Systems	2022 - Present

Conference

IEEE International Conference on Human-Machine Systems (ICHMS'24)	2024
International Workshop on Multidisciplinary Perspectives on Human-AI Team Trust	2023
Human Factors and Ergonomics Society (HFES) Annual Meeting	2021 - Present
AutomotiveUI	2020 - Present
HFES "Mobile Health Applications for Consumers" 2021 Design Competition	2021
NASA HRP 2021 Graduate Student/Postdoctoral Fellow Poster Contest	2021
AAAI Fall Symposium	2020

PROGRAM COMMITTEE SERVICE

Editorial Assistant for Journal of Human Factors	2021 - 2023
Committee, HFES Alphonse Chapanis Best Student Paper Award	2023
Event Chair, HFE WOMEN	2022 - Present
Co-Chair for HART/HPM 6 session, HFES	2022
Associate Chair, AutomotiveUI	2022, 2023
Program Chair, MULTITRUST23: International Workshop on Multidisciplinary Perspectives on Human-AI Team Trust	2023

UNIVERSITY SERVICE

Curriculum Committee, Georgia Tech, School of Psychology	2023 - Present
Membership Chair, University of Wisconsin-Madison HFES Chapter	2020 - 2023
Mentoring Circles, Agnes Scott College	2021 - 2023

PROFESSIONAL MEMBERSHIP

Member, Human Factors and Ergonomics Society (HFES)	2020 - Present
Member, Special Interest Group on Computer-Human Interaction (SIGCHI)	2019 - Present
Member, PSI CHI	2016 - Present
Member, University of Wisconsin-Madison HFES Chapter	2020 - 2023
Member, Agnes Scott Psychology and Neuroscience Club	2017 - 2018
Member, Phi Beta Kappa, Agnes Scott College	2018
