

SIMRET ARAYA GEBREEGZIABHER

Ph.D. Candidate, University of Notre Dame, IN, USA

📞 (574) 621-2665 | ✉️ sgebreeg@nd.edu | 🏠 <https://simreta.github.io/>

RESEARCH INTEREST

Human-Computer Interaction, Human-AI Collaboration, Human-AI Alignment, Evaluation and Auditing of AI Systems, Agentic AI

EDUCATION

Ph.D. in Computer Science 01/2022–06/2026 (*expected*)
University of Notre Dame Notre Dame, USA

- Advisor: Prof. Toby Jia-Jun Li
- Dissertation: *Cognition-Inspired Interactive Frameworks for Human-AI Alignment*
- Committee Members: Dr. Elena Glassman, Dr. Diego Gomez-Zara, Dr. Nitesh Chawla
- 🏆 IBM Ph.D. Fellow 2024–25

Bachelor of Science in Software Engineering 10/2016–10/2021
Addis Ababa Institute of Technology Addis Ababa, Ethiopia

- Major: Software Engineering
- Honor: Addis Ababa University 2021 Great Distinction

SELECTED PUBLICATIONS

- [C.9] **MultEval: Collaboratively Creating Criteria for LLM-as-a-Judge Systems**
Charles Chiang, **Simret Araya Gebreegziabher**, Annalisa Szymanski, Hyo Jin Do, Zahra Ashktorab, Werner Geyer, Toby Jia-Jun Li, and Diego Gomez-Zara
[In Submission]
- [C.8] **The Behavioral Fabric of LLM-Powered GUI Agents: Human Values and Interaction Outcomes**
Simret Araya Gebreegziabher, Yukun Yang, Charles Chiang, Dan Yoo, Chaoran Chen, Hyo Jin Do, Zahra Ashktorab, Werner Geyer, Diego Gomez-Zara, and Toby Jia-Jun Li
[To appear in IUI2026] arXiv:2601.16356
- [C.7] **Dark Patterns Meet GUI Agents: LLM Agent Susceptibility to Manipulative Interfaces and the Role of Human Oversight**
Jingyu Tang, Chaoran Chen, Jiawen Li, Zhiping Zhang, Bingcan Guo, Ibrahim Khalilov, **Simret Araya Gebreegziabher**, Bingsheng Yao, Dakuo Wang, Yanfang Ye, Tianshi Li, Ziang Xiao, Yaxing Yao, and Toby Jia-Jun Li
[To appear in CHI2026] arXiv:2509.10723
- [C.6] **Leveraging Variation Theory in Counterfactual Data Augmentation for Optimized Active Learning**
Simret Araya Gebreegziabher, Kuangshi Ai, Zheng Zhang, Elena L. Glassman, and Toby Jia-Jun Li
Findings of the 63rd Annual Meeting of the Association for Computational Linguistics (ACL Findings 2025)
- [C.5] **MetricMate: An Interactive Tool for Generating Evaluation Criteria for LLM-as-a-Judge Workflow**
Simret Araya Gebreegziabher, Charles Chiang, Zichu Wang, Zahra Ashktorab, Michelle Brachman, Werner Geyer, Toby Jia-Jun Li, and Diego Gomez-Zara
Proceedings of the 4th Annual Symposium on Human-Computer Interaction for Work (CHIWORK 2025)

- [C.4] **The Obvious Invisible Threat: LLM-Powered GUI Agents' Vulnerability to Fine-Print Injections**
Chaoran Chen, Zhiping Zhang, Bingcan Guo, Shang Ma, Ibrahim Khalilov, **Simret Araya Gebreegziabher**, Yanfang Ye, Ziang Xiao, Yaxing Yao, Tianshi Li, and Toby Jia-Jun Li
arXiv:2504.11281
- [C.3] **Supporting Co-Adaptive Machine Teaching through Human Concept Learning and Cognitive Theories**
Simret Araya Gebreegziabher, Yukun Yang, Elena L. Glassman, and Toby Jia-Jun Li
Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2025)
🏆 **Best Paper Award**
- [C.2] **Designing Staged Evaluation Workflows for LLMs: Integrating Domain Experts, Lay Users, and Model-Generated Evaluation Criteria**
Annalisa Szymanski, **Simret Araya Gebreegziabher**, Oghenemaro Anuyah, Ronald A. Metoyer, and Toby Jia-Jun Li
[To appear in CHI2026] arXiv:2410.02054
- [C.1] **PaTAT: Human-AI Collaborative Qualitative Coding with Explainable Interactive Rule Synthesis**
Simret Araya Gebreegziabher*, Zheng Zhang*, Xiaohang Tang, Yihao Meng, Elena L. Glassman, and Toby Jia-Jun Li
Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2023)

LIGHTLY-REVIEWED PUBLICATIONS

- [L.7] **EvalAgent: Interactive Comparative Evaluation of Computer-Using GUI Agents**
Yukun Yang, **Simret Araya Gebreegziabher**, Dan Yoo, Charles Chiang, Chaoran Chen, Annalisa Szymanski, Hyo Jin Do, Zahra Ashktorab, Werner Geyer, Diego Gomez-Zara, and Toby Jia-Jun Li
IUI 2026 Demo
- [L.6] **MultEval: Collaboratively Creating Criteria for LLM-as-a-Judge Systems**
Charles Chiang, **Simret Araya Gebreegziabher**, Annalisa Szymanski, Hyo Jin Do, Zahra Ashktorab, Werner Geyer, Toby Jia-Jun Li, and Diego Gomez-Zara
IUI 2026 Demo
- [L.5] **Toward a human-centered evaluation framework for trustworthy llm-powered gui agents**
Chaoran Chen, Zhiping Zhang, Ibrahim Khalilov, Bingcan Guo, **Simret A Gebreegziabher**, Yanfang Ye, Ziang Xiao, Yaxing Yao, Tianshi Li, Toby Jia-Jun Li
CHI 2025: HEAL Workshop
- [L.4] **MetricMate: An Interactive Tool for Generating Evaluation Criteria for LLM-as-a-Judge Workflow**
Simret Araya Gebreegziabher, Charles Chiang, Zichu Wang, Zahra Ashktorab, Michelle Brachman, Werner Geyer, Toby Jia-Jun Li, and Diego Gomez-Zara
IUI 2025 Workshop on Human-AI Co-Creation with Generative Models (HAI-GEN)
- [L.3] **MOCHA: Model Optimization through Collaborative Human-AI Alignment**
Simret Araya Gebreegziabher, Elena L. Glassman, and Toby Jia-Jun Li
Adjunct Proceedings of the 37th Annual ACM Symposium on User Interface Software and Technology (UIST 2024 Adjunct)
- [L.2] **CoCo Matrix: Taxonomy of Cognitive Contributions in Co-writing with Intelligent Agents**
Ruyuan Wan, **Simret Araya Gebreegziabher**, Toby Jia-Jun Li, and Karla Badillo-Urquiola
Extended Abstracts of the 16th ACM Conference on Creativity and Cognition (C&C 2024)

- [L.1] **A Taxonomy for Human-LLM Interaction Modes: An Initial Exploration**
Jie Gao*, **Simret Araya Gebreegziabher***, Kenny Choo, Toby Jia-Jun Li, Simon Perrault, Thomas Malone
Extended Abstracts of the 2024 ACM Conference on Human Factors in Computing Systems (CHI EA 2024)

WORK EXPERIENCE

AI/ML Research Intern 05/2025–08/2025

Apple

Host: Tim Muss

- Conducted a large-scale user research with Apple internal participants to understand the human input in LLM evaluation
- Devised a mixed methods approach by combining human factors and user research lens
- Presented results and actionable insights to senior directors and leadership

Research Scientist Intern 05/2023–11/2023

Meta Reality Labs

Host: Yan Xu

- Worked on Human-LLM interaction methods to support data exploration in UX-research, and qualitative research
- Developed and deployed an interactive system that is being used as an internal research tool
- Wrote a manuscript and submitted to an HCI conference

Graduate Teaching Assistant 01/2022–01/2023

University of Notre Dame

- Worked as a teaching assistant to the courses Human-Computer Interaction and Computer Architecture. As a teaching assistant I held office hours, advised students and graded exams and papers.

Research Assistant 05/2020–02/2021

University of Michigan

Host: Valeria Bertacco

- Worked as a research assistant at the University of Michigan with Professor Valeria Bertacco as my faculty advisor. I worked on computer architecture projects namely Composable Benchmarking and redesigning memory access for faster explainable-AI algorithms.

Teaching Assistant 05/2018–12/2018

Girls Can Code

- Coordinated and assisted in a program hosted by X-hub Addis that was working to help girls in high school get into tech before joining the university.

GRANTS & AWARDS

Best Paper Award: CHI 2025 [C.3]	2025
IBM Ph.D. Fellowship	2024–2025
Notre Dame–IBM Tech Ethics Hackathon: Second Place	2024
Gary Marsden Travel Awards	2023
Delta Analytics Global Teaching Fellow	2021
GRIESHMA Research Scholar: Indian Institute of Technology–Chennai	2020
First Place Winner at Oracle’s Back to School Ethiopia Hackathon	2019
Certified IBM Blockchain Developer: Mastery Award	2018

INVITED GUEST LECTURES AND TALKS

MetricMate: An Interactive Tool for Generating Evaluation Criteria for LLM-as-a-Judge Fall 2025
Host: Zahra Ashktorab
IBM Research

OpenAI API Workshop Spring 2025
CSE 40748/60748: Human-AI Collaborative Systems
Host: Toby Li
University of Notre Dame

Prototyping with Figma Workshop Spring 2025
CSE 40748/60748: Human-AI Collaborative Systems
Host: Toby Li
University of Notre Dame

AI Assisted Qualitative Data Analysis Spring 2024
EMR 6480: Qualitative Research Methods
Host: Beixi Li
Western Michigan University

Design in the Margins Fall 2022
CSE40424: Human-Computer Interaction
Host: Diego Gomez-Zara
University of Notre Dame

SERVICES

Computer Vision and Graphics Research Initiative 2026: Program Organizer	2026
ACM IUI 2026: Area Chair	2026
Reviewer: CHI 2023–2026, IUI 2024–2025, UIST 2024	2023–2026
ICLR 2025 Workshop on Bidirectional Human-AI Alignment: Program Committee	2025
University of Notre Dame Graduate Society of Women Engineers: Social Chair	2024
ACM IUI 2025: Social Co-Chair	2024
Student Volunteer: NeurIPS 2020, ACM FaccT 2022, ACM CHI 2023, ACM CHI 2024	2020–2024
INSPIRE - Addis Ababa University - Partnership Outreach Chair	2019–2020
Student Organizer for the First AI in Ethiopia Conference	2018

LANGUAGES & SKILLS

Programming Languages:	Python, Java, Javascript, SQL, Kotlin
UX Skills:	Qualitative Research, Experiment Design, User Studies
Database:	MySQL, NoSQL, Oracle
Languages:	English—Fluent, Tigrigna—Native, Amharic—Native