

SIMRET ARAYA GEBREEGZIABHER

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

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RESEARCH INTEREST

Human Computer Interaction, Human-AI Collaboration, Human-in-the-Loop Machine Learning, Data Annotation

EDUCATION

Ph.D. in Computer Science

University of Notre Dame

- Advisor: Prof. Toby Jia-Jun Li

01/2022 - Present

Notre Dame, USA

Bachelor of Science in Software Engineering

Addis Ababa Institute of Technology

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

10/2016 - 10/2021

Addis Ababa, Ethiopia

RESEARCH PAPERS

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

arXiv:2408.03819

LEXPLORA: A Human-AI Collaborative System for Qualitative Data Exploration and Analysis

Simret Araya Gebreegziabher*, Yan Xu*, Mary Anne Hood, Qisheng Li, Christopher Collins, Stephanie Santosa, Brad A Myers

(In Submission)

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

MOCHA: Model Optimization through Collaborative Human-AI Alignment

Simret 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)

CoCo Matrix: Taxonomy of Cognitive Contributions in Co-writing with Intelligent Agents

Ruyuan Wan, Simret Gebreegziabher, Toby Jia-Jun Li, and Karla Badillo-Urquiola

Extended Abstracts of the 16th ACM Conference on Creativity and Cognition (C&C 2024)

A Taxonomy for Human-LLM Interaction Modes: An Initial Exploration

Jie Gao*, Simret 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

Research Scientist Intern

Meta - Reality Labs

- I worked on Human-LLM interaction methods to support data exploration in UX-research, prototyping, interdisciplinary collaboration, and communication of research findings.

05/2023 - 11/2023

Graduate Teaching Assistant

University of Notre Dame

01/2022 - 01/2023

- I 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

- I 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

- I 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

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

LANGUAGES & SKILLS

Program Languages:	Python, Java, Javascript, SQL, Kotlin
UX Skills:	Qualitative Research, Experiment Design, User Study
Database:	MySQL, NoSql, Oracle
Languages:	English – Fluent, Tigrigna – Native, Amharic – Native

SERVICES

Graduate Society of Women Engineers – Social Chair	2024
ACM IUI 2025 – Social Co-chair	2024
Student Volunteer – NeurIPS 2020, FaCCT 2022, CHI2023, CHI2024	2020 - 2024
INSPIRE - Addis Ababa University - Partnership Outreach Chair	2019 - 2020
Student organizer for the first AI in Ethiopia Conference	2018