

RESEARCH INTERESTS

Human-Computer Interaction; Visualization; Learning at Scale; Educational Technology; Programming Support

EDUCATION

University of Michigan, Ann Arbor

Ph.D. in Information Science

2021.09-present

Advisor: Steve Oney

Peking University

B.S. in Intelligence Science

2016.09-2021.07

EXPERIENCE

University of Michigan, Ann Arbor

Graduate student and researcher

MI, United States

2021.09-present

Advised by Prof. Steve Oney, University of Michigan, Ann Arbor

Adobe Research

Research Scientist Intern

San Jose, CA, USA

2024.05-2024.08

Mentored by Dr. Jane Hoffswell

Peking University

Researcher

Beijing, China

2020.09-2021.05

Advised by Prof. Tao Xie, Peking University

University of Washington, Seattle

Remote visiting student

WA, United States

2020.07-2021.02

Advised by Prof. Amy X. Zhang, University of Washington, Seattle

University of Washington, Seattle

Visiting student

WA, United States

2019.09-2019.12

Advised by Prof. Tim Althoff, University of Washington, Seattle

PUBLICATIONS - CONFERENCE PAPERS

- Ashley Ge Zhang**, Victor Soares Bursztyn, Gromit Chan, Shunan Guo, Eunye Koh, Steve Oney, Jane Hoffswell
ConvoMap: Interactive Visualizations for Exploring Complex Conversations in Multi-Agent Systems
2025 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)
- Yinuo Yang, **Ashley Ge Zhang**, Steve Oney, April Yi Wang
SPARK: Real-Time Monitoring of Multi-Faceted Programming Exercises
2025 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)
- Ashley Ge Zhang**, Xiaohang Tang, Steve Oney, Yan Chen
CFlow: Supporting Semantic Flow Analysis of Students' Code in Programming Problems at Scale
ACM Conference on Learning at Scale, 2024
Best Paper Award
- Ashley Ge Zhang**, Yan Chen, Steve Oney
RunEx: Augmenting Regular-Expression Code Search with Runtime Values
2023 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)

5. **Ashley Ge Zhang**, Yan Chen, Steve Oney
VizProg: Identifying Misunderstandings by Visualizing Students' Coding Progress
Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems
Honorable Mention Award
6. April Yi Wang, Andrew Head, **Ashley Ge Zhang**, Steve Oney, Christopher Brooks
Colaroid: A Literate Programming Approach for Authoring Explorable Multi-Stage Tutorials
Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems
Honorable Mention Award
7. Mike Merrill, **Ashley Ge Zhang**, Tim Althoff
Mining Collective Data Science Knowledge from Code on the Web to Suggest Alternative Data Analysis Approaches
Proceedings of the 27th ACM SIGKDD Conference on Knowledge Discovery & Data Mining, 2021

PUBLICATIONS - JOURNAL PAPERS

1. **Ashley Ge Zhang***, Mike Merrill*, Yang Liu, Jeffrey Heer, Tim Althoff
CORAL: COde RepresentAtion Learning with Weakly-Supervised Transformers for Analyzing Data Analysis
EPJ Data Science, 2022

PUBLICATIONS - POSTERS AND WORKSHOPS

1. **Ashley Ge Zhang**
Scaling Code Understanding for Introductory Programming in the AI Era
Extended Abstracts of the 2025 CHI Conference on Human Factors in Computing Systems
2. **Ashley Ge Zhang**, Xiaohang Tang, Steve Oney, Yan Chen
Demonstration of CFlow: Supporting Semantic Flow Analysis of Students' Code in Programming Problems at Scale
Demos at the ACM Conference on Learning at Scale
3. Shiyu Xu, **Ashley Ge Zhang**, Steve Oney
How Pairing by Code Similarity Influences Discussions in Peer Learning
Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems

OPEN-SOURCED PROJECTS

- CORAL: COde Representation Learning for Analyzing Data Analysis *Autumn, 2019*
<https://github.com/behavioral-data/CORAL>

AWARDS

- Rackham Conference Travel Grant, 2022-2024
- UMSI Travel Grant, 2021-2024
- Best Paper Award, ACM L@S, 2024
- Special Recognitions for Outstanding Reviews, CHI 2024
- Honorable Mention Award, ACM CHI, 2023
- People's Choice Prize, Google Girls' Hackathon (as team leader), 2019
- 2nd Prize of ACM Competition, Peking University, 2017

SERVICE

Program Committee

- ACM Conference on Human Factors in Computing Systems (CHI), Late Breaking Work 2025

PEER REVIEW

- ACM Symposium on User Interface Software and Technology (UIST) 2024-2025
- ACM Creativity and Cognition (C&C) 2025
- ACM Conference on Human Factors in Computing Systems (CHI), Late Breaking Work 2025
- ACM Conference on Human Factors in Computing Systems (CHI) 2023-2024
- ACM Conference on Computer Supported Cooperative Work (CSCW) 2023-2024
- ACM Conference on Human Factors in Computing Systems (CHI), Late Breaking Work 2022-2023
- The Journal of Computer Languages (COLA) 2022
- IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC) 2022

MENTORING

- **Yinuo Yang** Undergraduate student at UMich, Ann Arbor 2024-2025
- **Shiyu Xu** Master student at UMich, Ann Arbor 2021