

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

Adobe Research

Research Scientist Intern

San Jose, CA, USA

2024.05-present

Supervised by Dr. Victor Soares Bursztyn and Dr. Jane Hoffswell

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

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

1. **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
2. **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)
3. **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
4. 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
5. 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**, 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
2. 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

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

PEER REVIEW

- ACM Symposium on User Interface Software and Technology (UIST) *2024*
- 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*