Ashley Ge Zhang

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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   MI, United States
Graduate student and researcher   *2021.09-present*
Advised by Prof. Steve Oney, University of Michigan, Ann Arbor

Adobe Research   San Jose, CA, USA
Research Scientist Intern   *2024.05-2024.08*
Mentored by Dr. Jane Hoffswell

Peking University   Beijing, China
Researcher   *2020.09-2021.05*
Advised by Prof. Tao Xie, Peking University

University of Washington, Seattle   WA, United States
Remote visiting student   *2020.07-2021.02*
Advised by Prof. Amy X. Zhang, University of Washington, Seattle

University of Washington, Seattle   WA, United States
Visiting student   *2019.09-2019.12*
Advised by Prof. Tim Althoff, University of Washington, Seattle

PUBLICATIONS - CONFERENCE PAPERS

1. **Ashley Ge Zhang**, Victor Soares Bursztyn, Gromit Chan, Shunan Guo, Eunyee 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)

2. 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)

3. **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

4. **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

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