

## RESEARCH INTERESTS

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

## EDUCATION

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### 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

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### 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

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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  
**Best Paper Award**
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  
**Honorable Mention Award**
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  
**Honorable Mention Award**

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**

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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**

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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**

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

## **AWARDS**

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- 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**

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### **Program Committee**

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

## **PEER REVIEW**

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- 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**

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