

# Zixin (Nicole) Zhao

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## RESEARCH AREA

Human Computer Interaction (HCI), Visualization, Natural Language Processing (NLP)

## EDUCATION

*Expected*  
May 2027

**Doctor of Philosophy**, Computer Science  
University of Toronto  
Supervisors: Fanny Chevalier and Gerald Penn

Aug 2023

**Master of Science**, Computer Science  
Ontario Tech University  
Supervisor: Dr. Christopher Collins  
Thesis: *Gloss Positioning for a Gaze Aware L2 Reading Aid* [[link](#)]

May 2021

**Bachelor of Science**, Electrical Engineering major and Computing Science minor  
University of Alberta

## RESEARCH EXPERIENCE

Sep 2023 to  
Apr 2024

**Research Associate**, vialab, Ontario Tech University  
Supervisor: Christopher Collins  
Design participant studies and conduct qualitative analysis on study data for projects on interpreting machine learning outputs through a visual analytics system for educational contexts.  
*Topics: Qualitative Analysis • Learning Analytics • Interactive Visualization*

Jun 2019 to  
Apr 2021

**Research Assistant**, EdTeKLA, University of Alberta  
Supervisor: Carrie Demmans Epp  
Full-stack developer for Cree Tutor, a language learning system for Plains Cree (y-dialect). Designed and built interactive family tree visualizations. Guided the annotation of a dataset for negative language transfer of Chinese ESL learners  
*Topics: Language Learning • Negative Language Transfer • Visualization*

May 2018 to  
Dec 2018

**Research Assistant**, Machine Intelligence Group, University of Western Australia  
Supervisor: Ajmal Mian  
Building and training deep models to approximate apparent age of human faces using rendered 3D faces with tensorflow and keras.  
*Topics: Deep Learning • Fine Tuning • Computer Vision*

## TEACHING EXPERIENCE

Sep 2025 to  
Present

**Teaching Assistant**, University of Toronto  
• CSC 316 (Data Visualization: Foundations and Advanced Programming)

May 2025 to  
Aug 2025

**Course Prep Teaching Assistant**, University of Toronto  
• CSC 316 (Data Visualization: Foundations and Advanced Programming)

- Jan 2025 to  
Apr 2025
- Teaching Assistant**, University of Toronto
- CSC 316 (Data Visualization: Foundations and Advanced Programming)
- Project Supervisor**, University of Toronto
- CSC 495 (Undergraduate Research Project: *Interactive Visualization for Writers*)
- Sep 2024 to  
Dec 2024
- Teaching Assistant**, University of Toronto
- STA 313 (Data Visualization)
  - CSC 485 (Computational Linguistics)
- Project Supervisor**, University of Toronto
- CSC 494 (Undergraduate Research Project: *Narrative Structure of Fanfictions*)
- Instructor**, Her Code Camp
- Curriculum developer and instructor for a 6 week program (“*Hey Chat, Code Bits for Cute Fits*”)
- Sep 2023 to  
Apr 2024
- Teaching Assistant**, University of Toronto
- CSC 2537 (Graduate Seminar: Information Visualization; Fall 2023 and Winter 2024 sessions)
- Graduate Mentor**, University of Toronto
- PRISM: Preparation for Research through Immersion, Skills, and Mentorship
- Dec 2021 to  
Apr 2023
- Teaching Assistant**, Ontario Tech University
- CSCI 4160 (Interactive Media - Introduction to Unity)
  - CSCI 4210 (Information Visualization)
  - CSCI 4620 (Human Computer Interaction)
- Jan 2018 to  
Aug 2023
- Tutor**, University of Alberta
- High school math and physics (Alberta curriculum)
  - University level introduction programming languages (Python, C/C++, MATLAB)
  - First and second year courses in calculus and physics
- May 2017 to  
Aug 2017
- Summer Instructor**, DiscoverE
- Course curriculum development for STEM classes aimed at Grade 9 students in Alberta and the Northwest Territories

## PUBLICATIONS, PEER REVIEWED

**Z. Zhao**, D. Masson, Y. Kim, G. Penn, F. Chevalier. (2025), Making the Write Connections: Linking Writing Support Tools with Writer Needs. *Proc. of Conf. on Human Factors in Computing Systems (CHI '25)*. DOI: [10.1145/3706598.3713161](https://doi.org/10.1145/3706598.3713161)

D. Masson, **Z. Zhao**, F. Chevalier. (2025) Visual Story-Writing: Writing by Manipulating Visual Representations of Stories. *Proc. of Conf. on User Interface Software and Technology (UIST '25)*.

D. Cerrera, **Z. Zhao**, A. Thomas, D. Wigdor. (2025) Nabokov's Cards: An LLM-Assisted Co-Writing System to Support Bottom-Up Creative Writing. *Creativity and Cognition (C&C '25)*

T. Yu, K. Shi, **Z. Zhao**, G. Penn. (2025), Multi-Agent Based Character Simulation for Story Writing. *Proc. of the 4th Workshop on Intelligent and Interactive Writing Assistants (In2Writing 2025)*.

R. Weagant\*, **Z. Zhao\***, A. Bradley, C. Collins. (2024) AdVizor: Using Visual Explanations to Guide Data-Driven Student Advising. *EduVis 2024: IEEE VIS Workshop on Visualization Education, Literacy, and Activities (EduVis 2024)*. \*equal contribution

C. Collins, S. Arbour, N. Beals, S. Yama, J. Laffier, **Z. Zhao**. (2022) Covid Connect: Chat-Driven Anonymous Story-Sharing for Peer Support. *Proc. of Designing Interactive Systems Conference (DIS '22)*. 301-318. DOI: [10.1145/3532106.3533545](https://doi.org/10.1145/3532106.3533545)

F. L. Wanderly, **N. Zhao**, and D. C. Epp. (2021) Negative language transfer in learner English: A new dataset. *NAACL-HLT 2021*. 3129–3142, DOI: [10.18653/v1/2021.naacl-main.251](https://doi.org/10.18653/v1/2021.naacl-main.251)

## WORKS IN PROGRESS

Can Large Language Models Summarize Long Narratives? A Study of Holistic versus Segmented Story Summarization, Long Paper, Submitted to *AAACL 2026*

## PRESENTATIONS AND POSTERS

**Z. Zhao**, D. Cerrera, A. Thomas, D. Wigdor. (2025) Nabokov's Cards: An LLM-Assisted Co-Writing System to Support Bottom-Up Creative Writing. ELO. [Presentation] Toronto, ON, Canada.

**Z. Zhao**, D. Masson, Y. Kim, G. Penn, F. Chevalier. (2025), Making the Write Connections: Linking Writing Support Tools with Writer Needs. TorCHI. [Presentation] Toronto, ON, Canada. [[link](#)]

**Z. Zhao**, J. Bo, K. Singh, (2024) *Make it Happier! Discretizing and Amplifying Happiness in Animated Faces*. GI 2024. [Poster] Halifax, NS, Canada. [[link](#)]

**Z. Zhao** (2022). *Work in Progress: Exploration of glosses for gaze enhanced language learning applications*. 10 min [Presentation]. CAN-CWIC, Toronto, ON, Canada.

O. McLeod, **Z. Zhao**, A. Sparrow, D. Lothian, K. Richards, G. Akcayir, C. Demmans Epp, (2021) *Helping Revitalize Plains Cree with User Centered Design*. ReverseEXPO. [Poster] Edmonton, AB, Canada. [[link](#)]

M. Yousef, E. Whitby, **N. Zhao** (2020) *Energy Monitoring System for a Transactive Market*. 15 min [Presentation] IEEE Capstone Scholarship Winners. Edmonton, AB, Canada.

## AWARDS AND SCHOLARSHIPS

July 1, 2025  
Value: \$15,000

Ontario Graduate Scholarship Program (OGS)

Nov 11, 2023 Faculty of Arts and Science Program Level Fellowship  
Value: \$1000

Apr 1, 2020 IEEE Capstone Award  
Value: \$2000

Sep 1, 2018 Queen Elizabeth II Scholars (QES) Scholarship  
Value: \$6000

## **RELEVANT ACTIVITIES**

2025 - Present Treasurer, Computer Science Graduate Students (CSGS)

2023 - Present Reviewer (DIS 2024; UIST 2024, 2025; CHI 2025; C&C 2025; CHI 2026)

2025 Graduate Application Assistance Program (GAAP) Mentor

2025 PC member (IUI 2026)

2023 - 2025 Social Coordinator, Computer Science Graduate Students (CSGS)

2025 Mentor, CS Academy

2024 Graduate Application Triager, School of Graduate Studies

2024 Panelist, Web-Based Surveys - Battling the Bots, Research Roundtable Series

2024 Judge, GenAI Genesis Hackathon

2017 - 2020 Mentor, DiscoverE