

# 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 CreeTutor, 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	<b>Teaching Assistant</b> , University of Toronto <ul style="list-style-type: none"> <li>CSC 316 (Data Visualization: Foundations and Advanced Programming)</li> </ul> <b>Project Supervisor</b> , University of Toronto <ul style="list-style-type: none"> <li>CSC 495 (Undergraduate Research Project: <i>Interactive Visualization for Writers</i>)</li> </ul>
Sep 2024 to Dec 2024	<b>Teaching Assistant</b> , University of Toronto <ul style="list-style-type: none"> <li>STA 313 (Data Visualization)</li> <li>CSC 485 (Computational Linguistics)</li> </ul> <b>Project Supervisor</b> , University of Toronto <ul style="list-style-type: none"> <li>CSC 494 (Undergraduate Research Project: <i>Narrative Structure of Fanfictions</i>)</li> </ul> <b>Instructor</b> , Her Code Camp <ul style="list-style-type: none"> <li>Curriculum developer and instructor for a 6 week program (“<i>Hey Chat, Code Bits for Cute Fits</i>”)</li> </ul>
Sep 2023 to Apr 2024	<b>Teaching Assistant</b> , University of Toronto <ul style="list-style-type: none"> <li>CSC 2537 (Graduate Seminar: Information Visualization; Fall 2023 and Winter 2024 sessions)</li> </ul> <b>Graduate Mentor</b> , University of Toronto <ul style="list-style-type: none"> <li>PRISM: Preparation for Research through Immersion, Skills, and Mentorship</li> </ul>
Dec 2021 to Apr 2023	<b>Teaching Assistant</b> , Ontario Tech University <ul style="list-style-type: none"> <li>CSCI 4160 (Interactive Media - Introduction to Unity)</li> <li>CSCI 4210 (Information Visualization)</li> <li>CSCI 4620 (Human Computer Interaction)</li> </ul>
Jan 2018 to Aug 2023	<b>Tutor</b> , University of Alberta <ul style="list-style-type: none"> <li>High school math and physics (Alberta curriculum)</li> <li>University level introduction programming languages (Python, C/C++, MATLAB)</li> <li>First and second year courses in calculus and physics</li> </ul>
May 2017 to Aug 2017	<b>Summer Instructor</b> , DiscoverE <ul style="list-style-type: none"> <li>Course curriculum development for STEM classes aimed at Grade 9 students in Alberta and the Northwest Territories</li> </ul>

## 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 *AACL 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	Ontario Graduate Scholarship Program (OGS)
Value: \$15,000	

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