

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: <i>Gloss Positioning for a Gaze Aware L2 Reading Aid</i> [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

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.nacl-main.251](https://doi.org/10.18653/v1/2021.nacl-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
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