Zixin (Nicole) Zhao

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https://zxnnic.github.io/

RESEARCH AREA

Human Computer Interaction (HCI), Information Visualization, Natural Language Processing (NLP), Educational Technology, Language Learning

EDUCATION

Started Sep 2023 **Doctor of Philosophy**, Computer Science

University of Toronto

Supervisors: Fanny Chevalier and Gerald Penn

2023 **Master of Science**, Computer Science

Ontario Tech University

Supervisor: Dr. Christopher Collins

Thesis: Gloss Positioning for a Gaze Aware L2 Reading Aid

2021 **Bachelor of Science**, Electric Engineering major and Computing Science minor

University of Alberta

RESEARCH EXPERIENCE

Sep 2023 to Present Graduate Research Assistant, DGP and CL Lab, University of Toronto

Supervisor: Fanny Chevalier and Gerald Penn

· Developing writing supports tools

Sep 2023 to

Research Associate, vialab, Ontario Tech University

Present Supervisor: Christopher Collins

Gaze intervention methods for reading technologies

Organization, transcription, and analysis of study material

May 2021 to

Graduate Research Assistant, vialab, Ontario Tech University

Aug 2023

Supervisor: Christopher Collins

Analysis on user input data to a mental health chatbot response visualization tool

Jun 2019 to Apr 2021 Research Assistant, EdTeKLA, University of Alberta

Supervisor: Carrie Demmans Epp

 Full-stack developer for CreeTutor, a web-based language learning system for Plains Cree(y-dialect)

Family tree visualizations for Cree kinship learning

Released dataset of negative language transfer of ESL students with Chinese L1

May 2018 to Dec 2018

Research Assistant, Machine Intelligence Group, University of Western Australia

Supervisor: Ajmal Mian

Approximate apparent age of human faces using rendered 3D faces

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TEACHING EXPERIENCE

Sep 2023 to present

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)
- Introductory 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 (2023) Gloss Positioning for a Gaze Aware L2 Reading Aid. *Master's Thesis*. [link]

C. Collins, S. Arbour, N. Beals, S. Yama, J. Laffier, **Z. Zhao**. (2022) Covid Connect: Chat-Driven Anonymous Story-Sharing for Peer Support. *DIS '22: Designing Interactive Systems Conference*. 301-318. 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*. 3129–3142, https://doi.org/10.18653/v1/2021.naacl-main.251

WORKS IN PROGRESS

Using Visual Explanations to Guide Data-Driven Student Advising, Long Paper, Submitted to *Graphics Interface (GI) Conference 2024*

Make it Happier! Discretizing and Amplifying Happiness in Animated Faces, Poster, To be submitted to ACM SIGGRAPH

PRESENTATIONS AND POSTERS

Z. Zhao (2022). Work in Progress: Exploration of glosses for gaze enhanced language learning applications. 10 min [Conference 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]

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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

Mar 26, 2024	Department of Computer Science Graduate Program Award
Nov 11, 2023	Faculty of Arts and Science Program Level Fellowship
Apr 1, 2020	IEEE Capstone Scholarship
Sep 1, 2018	Queen Elizabeth II Scholars (QES) Scholarship
Sep 1, 2015	Canadian Association of Petroleum Producers Academic Excellence Scholarship in Engineering
Sep 1, 2015	Linginieering
	Faculty of Engineering Academic Excellence Scholarship
REFERENCES	Available upon request