Siyi Wu

Email: reyna.wu@mail.utoronto.ca
Mobile: 437-599-5541

EDUCATION

University of Toronto   Sep 2022 - Dec 2027 (Expected)
Doctor of Philosophy in Computer Science; GPA: 4.0/4.0; Supervisor: Steve Easterbrook

- **Fellowship:** 2024 Schwartz Reisman Institute for Technology and Society Fellowship

The Hong Kong University of Science and Technology   Sep 2021 - June 2022
Master of Science in Financial Technology; GPA: 4.1/4.3

Wake Forest University   Sep 2017 - May 2021
Honors in Bachelor of Science in Computer Science & Mathematical Statistics

- **Academics: Honors**, GPA:3.97/4.00, **Summa Cum Laude**, Dean's List, **Upsilon Pi Epsilon**, **Phi Beta Kappa**, **Pi Mu Epsilon**, **Alpha Phi Omega**
- **Awards:** URECA research fellowship ($8000), Grace Hopper Scholarship 2020.

RESEARCH INTERESTS

Human-AI collaborations; Climate Informatics; Explainable AI

PUBLICATIONS

- **CardioAI: A Multimodal AI-Based System to Support Symptom Monitoring and Risk Detection of Cancer Treatment-Induced Cardiotoxicity**
  Siyi Wu, Weidan Cao, Shihan Fu, Bingsheng Yao, Ziqi Yang, Changchang Yin, Varun Mishra, Daniel Addison, Ping Zhang, Dakuo Wang
  Proceedings of the ACM CHI Conference on Human Factors in Computing Systems (CHI '25).

- **Bridging the Gap: Climate Scientists' Concerns and Expectations for Machine Learning**
  Siyi Wu, Steve M. Easterbrook
  ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (COMPASS '25)

- **"Near Data" and "Far Data" for Urban Sustainability: How Do Community Advocates Envision Data Intermediaries?**
  Han Qiao, Siyi Wu, Christoph Becker
  Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW '25 Best Paper Award)).

- **The State of Data Curation at NeurIPS: An Assessment of Dataset Development Practices in the Datasets and Benchmarks Track**
  Eshta Bhardwaj, Harshit Gujral, Siyi Wu, Ciara Zogheib, Tegan Maharaj, Christoph Becker
  Advances in Neural Information Processing Systems (NeurIPS '24))

- **Machine Learning Data Practices through a Data Curation Lens: An Evaluation Framework**
  Eshta Bhardwaj, Harshit Gujral, Siyi Wu, Ciara Zogheib, Tegan Maharaj, Christoph Becker
  Proceedings of the 2024 ACM Conference on Fairness, Accountability, and Transparency (FAccT '24).

- **Bridging the Usability Gap: A Research Agenda for Enhancing Climate Information and Communication**
  Siyi Wu, Steve M. Easterbrook, Tegan Maharaj
  Sustaining Scalable Sustainability Workshop at ACM CHI 2024

IN SUBMISSION

- **Clinical Challenges and AI Opportunities in Decision-Making for Cancer Treatment-Induced Cardiotoxicity**
  <u>Siyi Wu</u>, Weidan Cao, Shihan Fu, Bingsheng Yao, Ziqi Yang, Changchang Yin, Varun Mishra, Daniel Addison, Ping Zhang, Dakuo Wang
  In Submission to CSCW'26

- **"I Like Sunnie More Than I Expected!": Exploring User Expectation and Perception of an Anthropomorphic LLM-Based Conversational Agent for Well-Being Support**
  <u>Siyi Wu</u>, Feixue Han, Bingsheng Yao, Tianyi Xie, Xuan Zhao, Dakuo Wang
  In Submission to JMIR

- **Designing and Evaluating Sampling Strategies for Multiple-Forecast Visualization (MFV)**
  Ruishi Zou, <u>Siyi Wu</u>, Bingsheng Yao, Dakuo Wang, Lace Padilla
  arXiv preprint arXiv:2411.02576, 2024/11/4

RESEARCH EXPERIENCE

Toronto Climate Observatory TCO   Sep 2022 - Present
Graduate Researcher (Supervised by Prof. Steve Easterbrook)
    investigating the intersection of environmental justice, specifically exploring urban heat island effects, particularly examining the role of green spaces and cooling centers in relation to socioeconomic factors in urban areas

Environment and Climate Change Canada   Jun 2024 - Dec 2024
Research Affiliate Program

- Processed, curated, and analyzed precipitation and snowfall data from multiple CMIP6 models under various Shared Socioeconomic Pathways (SSPs).

- Managed structured directories of downscaled and bias-corrected precipitation datasets, including historical and future projections.

- Developed and automated scripts (Python, shell) to handle large-volume data ingestion, preprocessing, and quality control.

- Worked with snowfall datasets stored in multi-model ensemble formats to support snow-related risk assessments.

SKILLS

Programming Languages: Python, R, C, C++, Javascript, HTML, MySQL
Frameworks and Tools: Keras, Scikit-learn, PyTorch, Pandas, NumPy, D3, Matplotlib, LaTeX
Qualitative Methods: Semi-structured interviews, focus groups, community engagement, thematic analysis
Design & Communication: Canva, Adobe Illustrator

TEACHING EXPERIENCE

Teaching Assistant, UofT, Introduction to Databases (CSC343)	Winter 2024
Teaching Assistant, UofT, Computers and Society(CSC300)	Winter 2024
Teaching Assistant, UofT, Introduction to Databases (CSC343)	Fall 2023
Teaching Assistant, UofT, Introduction to Computer Science (CSC148)	Winter 2023
Teaching Assistant, Neoscholar CIS, Machine Learning Algorithms by Victor Adamchik	2021
Teaching Assistant, Neoscholar CIS, Computational Biology by Sorin Istrail	2021
Teaching Assistant, Neoscholar CIS, Planning for Autonomous robots by Nick Hawes	2021
Teaching Assistant, Neoscholar CIS, Algorithms by David Woodruff	Summer, Spring, Winter 2020
Teaching Assistant, Wake Forest University, Introduction to Computer Science (CSC111)	Winter 2020