Lisa Zhang: Curriculum Vitae

Education

University of Toronto, Master of Science 2016-2018, TORONTO
Department of Computer Science, Machine Learning.
Thesis: Leveraging Constraint Logic Programming for Neural Network Guided Program Synthesis
Supervisors: Prof. Richard Zemel and Prof. Raquel Urtasun.

University of Waterloo, Bachelor of Mathematics 2007-2012, WATERLOO
Honours Pure Mathematics, Honours Applied Mathematics, Co-op,
With Distinction, Dean's Honours List

Employment (Academic)

Assistant Professor, Teaching Stream
Department of Mathematical and Computational Sciences
University of Toronto Mississauga 2020-Present, MISSISSAUGA

Assistant Professor, Teaching Stream (Contractually-Limited Term Appointment)
Department of Mathematical and Computational Sciences
University of Toronto Mississauga 2018-2020, MISSISSAUGA

Course Instructor, University of Toronto 2018, TORONTO

Teaching Assistant, University of Toronto Various, 2016-2017, TORONTO

Employment (Industry)

Senior Data Scientist, Rubicon Project 2016, TORONTO
Data Scientist, Chango / Rubicon Project (acquisition) 2014-2016, TORONTO
VP Engineering & Data Scientist, Rubikloud 2013-2014, TORONTO
Founder & CEO, Polychart 2011-2013, TORONTO
Software Developer (Intern), ContextLogic 2011, SAN FRANCISCO
Data Scientist (Intern), Facebook 2010 (2x), PALO ALTO
Software Developer (Intern), Tagged 2009, SAN FRANCISCO
Actuarial Intern, Towers Perrin 2009, PHILADELPHIA
Junior Programmer/Analyst, Passport Canada 2008, GATINEAU

Honours

Best Paper, Experience Reports and Tools Track, SIGCSE (2023) for *"Embedding and Scaling Writing Instruction Across First- and Second-Year Computer Science Courses."*

5% PTR Merit Award, University of Toronto Mississauga (2022, 2023, 2024)

EAAI New and Future AI Educator Award (2021)

Top 10% of Reviewers, Neural Information Processing Systems (2019)

Refereed Publications in CS/AI Education

Undergraduate students are highlighted

[29] Rose Niousha, Dev Ahluwalia, Michael Wu, Lisa Zhang, Narges Norouzi **"Mapping the Pathways: A Comparative Analysis of AI/ML/DS Prerequisite Structures in R1 Institutions in the United States**" *In 2024 IEEE Frontiers in Education Conference (FIE)* (2024) ***To appear**

[28] Rutwa Engineer, Naaz Sibia, Michael Kaler, Bogdan Simion, Lisa Zhang **"Early Computer Science Students' Perspectives Towards The Importance Of Writing"** *Proceedings of the 29th ACM Conference on Innovation and Technology in Computer Science Education*. (2024)

[27] Ouldooz Baghban Karimi, Giulia Toti, Mirela Gutica, Rebecca Robinson, Lisa Zhang, James Paterson, Peggy Lindner, Michael O'Dea. **"Enhancing Diversity and Inclusion in Computer Science Undergraduate Programs: The Role of Admissions."** *Proceedings of the 2023 Working Group Reports on Innovation and Technology in Computer Science Education*. (2023)

[26] Renato Zimmermann, Sonya Allin and Lisa Zhang. **"Common Errors in Machine Learning Projects: A Second Look."** *23rd Koli Calling International Conference on Computing Education Research*. (2023)

[25] Brandon Jaipersaud, Paul Zhang, Jimmy Ba, Andrew Petersen, Lisa Zhang, Michael R. Zhang. "**Decomposed Prompting to Answer Questions on a Course Discussion Board**." *International Conference on Artificial Intelligence in Education.* (2023)

[24] Angela Zavaleta Bernuy, Anna Ly, Brian Harrington, Michael Liut, Sadia Sharmin, Lisa Zhang, Andrew Petersen. "**"I Am Not Enough": Impostor Phenomenon Experiences of University Students."** *Proceedings of the 28th ACM Conference on Innovation and Technology in Computer Science Education*. (2023)

[23] Lisa Zhang, Sonya Allin. "**Just-In-Time Prerequisite Review for a Machine Learning Course."** *Proceedings of the 25th Western Canadian Conference on Computing Education. (2023)*

[22] Lisa Zhang, Bogdan Simion, Michael Kaler, Amna Liaqat, Daniel Dick, Andi Bergen, Michael Miljanovic and Andrew Petersen. **"Embedding and Scaling Writing Instruction Across First- and Second-Year Computer Science Courses."** *Proceedings of the 54th ACM Technical Symposium on Computer Science Education. (2023)* [****Best Paper - Experience Reports and Tools Track]**

[21] Rehmat Munir, Francesco Strafforello, Niveditha Kani, Michael Kaler, Bogdan Simion, Lisa Zhang. "**Exploring Common Writing Issues in Upper-Year Computer Science."** *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education (SIGCSE 2022)*.

[20] Angela Zavaleta Bernuy, Anna Ly, Brian Harrington, Michael Liut, Andrew Petersen, Sadia Sharmin, Lisa Zhang. "**Additional Evidence for the Prevalence of the Imposter Phenomenon in Computing."** *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education. (2022)*

[19] Lisa Zhang, Pouira Fewzee. "**Model AI Assignments: Text Denoising Autoencoder for News Headlines."** *Proceedings of the AAAI Conference on Artificial Intelligence (2021)*

[18] Lisa Zhang, Bibin Sebastian. "**Model AI Assignments: Gesture Recognition using Convolutional Neural Networks."** *Proceedings of the AAAI Conference on Artificial Intelligence (2020)*

[17] Lisa Zhang, Michelle Craig, Mark Kazakevich, Joseph Williams. "**Experience Report: Mini Guest Lectures in a CS1 Course via Video Conferencing."** *Proceedings of the First ACM Global Computing Education Conference. (2019)*

[16] Michael Guerzhoy, Lisa Zhang. "**Model AI Assignments: Building a Fake News Detector."** *Proceedings of the AAAI Conference on Artificial Intelligence. (2019)*

Refereed Extended Abstracts in CS/AI Education

[15] Paul Zhang, Brandon Jaipersaud, Jimmy Ba, Andrew Petersen, Lisa Zhang, Michael R. Zhang. "**Classifying Course Discussion Board Questions using LLMs."** *Proceedings of the 28th ACM Conference on Innovation and Technology in Computer Science Education*. (2023)

[14] Yu-Chieh Wu, Andrew Petersen, Lisa Zhang. "**Student Reactions to Bots on Course Q&A Platform."** *Proceedings of the 27th ACM Conference on Innovation and Technology in Computer Science Education*. (2022)

[13] Shion Fujimori, Mohamed Harmanani, Owais Siddiqui, Lisa Zhang. "**Using Deep Learning to Localize Errors in Student Code Submissions."***Proceedings of the 53rd ACM Technical Symposium on Computer Science Education.* (2022)

[12] Lucas Roy, Haotian Yang, Lisa Zhang. "**CS1 Programming Feedback with Bug Localization."** Proceedings of the 6th SPLICE Workshop at L@S. (2020)

[11] Zain Kazmi, Wafiqah Raisa, Harsh Jhunjhunwala, Lisa Zhang. "**Recommending Personalized Review Questions using Collaborative Filtering."** *Proceedings of the 6th SPLICE Workshop at L@S. (2020)*

[10] Robert Bazzocchi, Micah Flemming, Lisa Zhang. **"Analyzing CS1 Student Code Using Code Embeddings."** *Proceedings of the 51st ACM Technical Symposium on Computer Science Education.* (2020)

Refereed Workshops in Programming Languages

[9] Sloan Chochinov, Daksh Malhotra, Gregory Rosenblatt, Matthew Might, Lisa Zhang. "**Fail Fast and Profile on: Towards a miniKanren Profiler."** *Proceedings of the 2022 miniKanren and Relational Programming Workshop*. (2022)

[8] Ende Jin, Gregory Rosenblatt, Matthew Might, Lisa Zhang. "**Universal Quantification and Implication in miniKanren."** *Proceedings of the 2021 miniKanren and Relational Programming Workshop.* (2021).

[7] Lucas Sandre, Malaika Zaidi, Lisa Zhang. **"Relational Floating-Point Arithmetic."** *Proceedings of the 2021 miniKanren and Relational Programming Workshop*. (2021)

[6] Artem Chirkov, Gregory Rosenblatt, Matthew Might, Lisa Zhang. "**A Relational Interpreter for Synthesizing JavaScript."** *Proceedings of the 2020 miniKanren and Relational Programming Workshop. (2020)*

[5] Gregory Rosenblatt, Lisa Zhang, William E. Byrd, Matthew Might. "**First-order miniKanren representation: Great for tooling and search."** *Proceedings of the 2019 miniKanren and Relational Programming Workshop. (*2019)

Refereed Publications in Machine Learning

[4] KiJung Yoon, Renjie Liao, Yuwen Xiong, Lisa Zhang, Ethan Fetaya, Raquel Urtasun, Richard Zemel, Xaq Pitkow. "**Inference in Probabilistic Graphical Models by Graph Neural Networks."** *Proceedings of the 53rd Asilomar Conference on Signals, Systems and Computers*. (2019)

[3] Lisa Zhang, Gregory Rosenblatt, Ethan Fetaya, Renjie Liao, William E. Byrd, Matthew Might, Raquel Urtasun, Richard Zemel. "**Neural Guided Constraint Logic Programming for Program Synthesis."** *Proceedings of Advances in Neural Information Processing Systems 31.* (2018)

[2] Renjie Liao, Yuwen Xiong, Ethan Fetaya, Lisa Zhang, KiJung Yoon, Xaq Pitkow, Raquel Urtasun, Richard Zemel. "**Reviving and Improving Recurrent Back-Propagation."** *Proceedings of the Thirty-Fifth International Conference on Machine Learning.* (2018) **[**Full Oral]**

[1] Diego Marcos, Devis Tuia, Benjamin Kellenberger, Lisa Zhang, Min Bai, Renjie Liao, Raquel Urtasun. "**Learning deep structured active contours end-to-end."** *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition.* (2018)

Non-Refereed Publications

Undergraduate students are highlighted

Lisa Zhang, Pouria Fewzee, Charbel Feghali. **"AI Education Matters: Text Denoising Autoencoder for News Headlines."** AI Matters, Volume 7, Issue 1. September 2021

Michael Guerzhoy, Lisa Zhang, Georgy Noarov. **"AI Education Matters: Building a Fake News Detector."** AI Matters, Volume 5, Issue 3. September 2019

Papers Presented at Meetings & Symposia

"Common Errors in Machine Learning Projects: A Second Look." Koli Calling. (November 2023). See [26].

"Just-In-Time Prerequisite Review for a Machine Learning Course." Western Canadian Conference on Computing Education. (May 2023). See [23].

"Embedding and Scaling Writing Instruction Across First- and Second-Year Computer Science Courses." ACM Technical Symposium on Computer Science Education. (March 2023). See [22].

With Rehmat Munir, Francesco Strafforello, Niveditha Kani. **"Exploring Common Writing Issues in Upper-Year Computer Science"** ACM Technical Symposium on Computer Science Education. (March 2022). See [21].

"Model AI Assignments: Text Denoising Autoencoder for News Headlines." Symposium on Educational Advances in Artificial Intelligence. (February 2021) See [19].

"Model AI Assignments: Gesture Recognition using Convolutional Neural Networks." Symposium on Educational Advances in Artificial Intelligence. (February 2020) See [18].

"Experience Report: Mini Guest Lectures in a CS1 Course via Video Conferencing." ACM Global Computing Education Conference. (May 2019). See [17].

With Gregory Rosenblatt. **"First-order miniKanren representation: Great for tooling and search."** miniKanren and Relational Programming Workshop. (August 2019). See [5].

With Gregory Rosenblatt. **"Neural Guided Constraint Logic Programming for Program Synthesis."** Neural Information Processing Systems. (December 2018). See [3].

With Gregory Rosenblatt. **"Leveraging Constraint Logic Programming for Neural Guided Program Synthesis."** Workshop Track. International Conference on Learning Representations. (May 2018).

Invited Talks, Panels, and Presentations

"AI in Computing Education from Research to Practice." (Panel Presentation). ACM Technical Symposium on Computer Science Education. (March 2024)

With Bogdan Simion and Michael Kaler. **"Embedding and Scaling Writing Instruction Across First- and Second-Year Computer Science Courses"** Teaching and Learning Symposium. (May 2023)

Academic Panel. Google Developer Student Club Conference for Women in Tech. (April 2023)

"Creating Safe Space for Instructor Identity in Computing." (Panel Presentation). ACM Technical Symposium on Computer Science Education. (March 2023)

"Large Language Models: What Are they?" Generative AI and Teaching Lunch & Learn, UTM Teaching and Learning Collaboration (March 2023)

"Using a Variety of Data Sets in a Machine Learning Course." Responsible Data Science, DSI@UTM, Data Digest session on Data and Students. (February 2023)

"Universal Quantification and Implication." The seminar of the JetBrains Programming Languages and Tools Lab. (November 2020)

"Using GraphX/Pregel on Browsing History to Discover Purchase Intent." Spark Summit East (Feb 2016)

Data Visualization Workshop (8-hour workshop). Humber College, (December 2014)

Awards, Grants and Scholarships

Teaching Development and Innovation Grant ($5,000) 2024, UTM
Resource Development for an Inverted Upper-Year Deep Learning Course (with Igor Gilitschenski, Florian Shkurti)

Learning & Education Advancement Fund ($70,702) 2024, UTM
Integrating Generative AI Tutoring Systems for Personalized and Timely Feedback to Enhance the Learning Experience (with Michael Liut; Samantha-Jo Caetano; Andrew Petersen; Daniel Zingaro; Tingting Zhu)

UTM Teaching & Learning Conference & Colloquia ($1,350) 2024, UTM
Generative AI and the Teaching and Learning of Threshold Concepts (with Mark Blaauw-Hara, Christopher Eaton, David Gerstle, Sheliza Ibrahim, Sarah Seeley, Michelle Troberg)

UTM Working Group Fund ($2,882) 2024, UTM
Threshold Knowledge in University Pedagogy (with Mark Blaauw-Hara, Christopher Eaton, David Gerstle, Sheliza Ibrahim, Sarah Seeley, Michelle Troberg)

Teaching Development Travel Grant ($2,000) 2024, UTM

Pedagogical Research Fund ($10,000) 2023-2024, UTM
Analyze the Misconceptions and Barriers to Success in Machine Learning.

Writing Development Initiative (WDI) Program (Approx $50,000/year) 2021-, UTM
Funding to embed writing instruction in core, first- and second-year computer science courses.

Writing Development Initiative (WDI) Program (Approx $1,800/year) 2023-, UTM
Funding to embed writing instruction in upper-year computer science courses.

Dean's Excellence Award ($600 in 2023, $400 in 2022) 2022, 2023, UTM

Teaching Development and Innovation Grant ($5,000) 2023, UTM
Risk and Risk Mitigation in Artificial Intelligence (with Sonya Allin)

Teaching Development and Innovation Grant ($4,980) 2022, UTM
Quantitative assessment of Student Writing in the WDI project (with Bogdan Simion and Michael Kaler)

Teaching Development Travel Grant ($2,000) 2022, UTM

Research Opportunity Program (ROP) Funding 2021 ($1,000) 2021, UTM
Bug localization for CS1 code using deep learning

EAAI-21 Scholarship ($75 USD) 2021

Writing Development Initiative Program (Approx $14,000/year) 2019-2021, UTM
Funding to hire additional teaching assistants in the CSC290 *communication skills* course

EAAI-20 New and Future AI Educator Award ($1,000 USD) 2020
Teaching Development Travel Grant ($2,000) 2019, UTM
Vector Institute Research Grant ($4,000) 2017-2018
R.A. Wentzell Memorial Award ($1,000) 2010-2011, University of Waterloo
Rene Descartes Scholarship ($8,000) 2017-2012, University of Waterloo
President's Scholarship of Distinction ($2,000) 2007-2008, University of Waterloo

Courses Taught

CSC324H5 Principles of Programming Languages: Fall 2024, 2023, 2022, 2021, 2020, 2019, 2018

CSC311H5 Introduction to Machine Learning: Winter 2024, Fall 2023, 2022

CSC413H5 Neural Networks and Deep Learning**:** Winter 2022, 2021

CSC263H5 Data Structure and Analysis: Winter 2022, 2021

CSC338H5 Numerical Methods: Winter 2021, 2020, 2019

CSC321H5 Neural Networks and Machine Learning: Winter 2020

CSC290H5 Communication Skills for Computer Scientists: Fall 2020, 2019, Winter 2019, Fall 2018

APS360H1 Fundamentals of AI (now Applied Deep Learning Fundamentals): Summer 2019, Winter 2019

CSC108H1 Introduction to Programming: Summer 2018

CSC411H1/CSC2515H1 Introduction to Machine Learning: Winter 2018

Student Supervision

…in Machine Learning Education

Jingru Guo (CSC492), Kaifeng Li. Systematic review of AI curriculum in Canada. 2024

Nasim Bondar. (CSC492) Machine learning course resource development for CSC311. 2024

Lucas Noritomi-Hartwig. (Paid research opportunity) Deep learning flipped classroom resource development. *Co-supervision with Prof. Igor Gilitschenski and Prof. Florian Shkurti 2024

Rose Niousha, Dev Ahluwalia, Michael Wu. Systematic review of AI curriculum in US R1 Institutions. *Co-supervision with Prof. Narges Norouzi at UC Berkeley 2024

Ayush Oza, Dominic Gu. (CSC492/495) Literature review of AI education at the post-secondary level. 2023-2024

Naaz Sibia, Amber Richardson. (Paid research opportunity) Qualitative analysis of student perceptions of barriers in a machine learning course. *Co-supervision with Prof. Andrew Petersen 2023-2024

Mahldi Haghifam, Mustafa Haiderbhai. (Paid research opportunity) Development of experiential learning assessments for risk mitigation in AI Courses. *Co-supervision with Prof. Sonya Allin. 2023

Renato Magela Zimmermann. (Paid research opportunity) Qualitative analysis of common errors in an open-ended machine learning course. Presented at Koli 2023 [26]. 2023

Taqieldin Hamoda, Riley Hannigan, Riddesh Shah, Yiqi Shen (CSC492) Designed and created videos in Manim to illustrate deep learning concepts. Videos were used in CSC413.
https://github.com/TaqiHamoda/CSC492VisualDesignForDeepLearningConcepts 2021

…in Applied Machine Learning

Zezhu Yu, Richard Liu Feedback summarization with Small Language Models (SLM). 2024
*Co-supervision with Prof. Michale Liut

Laura Maldonado, Asad Khan, Lucas Noritomi-Hartwig (CSC492) Computer vision guided indoor rock climbing for assisting visually impaired climbers. Students received a UTM Undergraduate Research Grant. 2024

Brandon Jaipersaud, Paul Zhang (CSC499). Using Large Language Models (LLM) to propose answers to student questions on Piazza. Presented at iTICSE 2023 [15] and AIEd [25]. 2023
Paul received a UTM Undergraduate Research Grant. *Co-supervision with Prof. Andrew Petersen, Prof. Jimmy Ba.

Maor Gornic, Hammad Sheikh, Joyce Wong, Marko Choi, Brian Zhang, Axel Visan. (CSC492) Building and evaluating a tutoring software "QuickTA" that leverages Large Language Models (LLM).
*Co-supervision with Prof. Michael Liut. 2023

Raiyan Chowdhury, Sibthan Kazmi, Hrithik Advani, Ahmed Nasir (CSC499, CSC492) Created software for analyzing and visualizing binding sites of small molecules predicted by machine learning models. 2022

Ayush Oza, Janelle Samar-Brizuela, Sloan Chochinov, Matthew Muriithi, Gabrielle Ong, Youzhao Wu, Youan Cong (CSC492) Various deep learning implementation projects. 2022

Owais Ahmed Siddiqui, Mohamed Harmanani (CSC499) Built a machine learning model that uses transformer models and pre-trained models to locate bugs in student code. Presented at SIGCSE 2022 as a poster [13].
Students received a UTM Undergraduate Research Grant. 2021-2022

Zain Kazmi, Wafiqah Raisa, Harsh Jhunjhunwala (CSC392 Independent Studies) Explored, developed and deployed machine learning models to recommend individualized review questions for CS1 students preparing for a test/exam. Presented at the SPLICE workshop at L@S. [11] 2020

Shion Fujimori, Mohammadreza Moravej (CSC392/492) Built a machine learning model that uses transformer models and pre-trained models to locate bugs in student code. Presented at SIGCSE 2022 as a poster [13]. 2020-2021

Lucas Roy (CSC493) Built a machine learning model that uses a recurrent neural network (RNN) to locate bugs in student code. Presented at the SPLICE workshop at L@S. [12] 2020

Sharven Dhanasekar, Ajitesh Misra (CSC398 Independent Studies Course) Built a machine learning model for sentiment analysis and music generation. 2020

Haotian Yang (CSC492) Built a machine learning model that uses attention in a transformer model to identify errors in student code. Presented at the SPLICE workshop at L@S [12]. 2019-2020

Patrick Fanghao Han (CSC492) Wrote a tutorial on Graph Autoencoders for the Towards Data Science blog:
https://towardsdatascience.com/tutorial-on-variational-graph-auto-encoders-da9333281129 2019

Wan Son Lee (CSC492 Independent Studies Course) Built a reinforcement learning agent to play the game Atari
https://github.com/WansongLee/DeepQLearning 2019

Micah Flemming (CSC398) Continued Robert's work on generating embeddings of student code, and using those embeddings to solve interesting problems. Presented at SIGCSE 2020 as a poster [10]. 2019-2020

Robert Bazzocchi (ECE499) Developed a machine learning technique to cluster student submissions to programming problems. Presented at SIGCSE 2020 as a poster [10]. 2018-2020

…in Writing Development

Cat Xia, Alisha Hasan (Paid research opportunity) Analysis of the Writing Development Initiative surveys.
*Co-supervision with Prof. Bogdan Simion 2024

Nipun Rustagi, Ido Ben Haim (Paid research opportunity) Analysis of the Writing Development TA feedback.
*Co-supervision with Prof. Bogdan Simion 2024

Naaz Sibia, Rutwa Engineer. (Paid research opportunity) Analysis of the Writing Development Initiative surveys.
*Co-supervision with Prof. Bogdan Simion 2024

Rutwa Engineer, Amna Liaqat. (Paid research opportunity) Analysis of upper-year writing before and after WDI. *Co-supervision with Prof. Bogdan Simion, Prof. Michael Kaler. 2023

Amna Liaqat, Daniel Dick, Rutwa Engineer, Paul Zhang, Mark Ascion. (Paid research opportunity) Analysis of the Writing Development Initiative writing artifacts and surveys. Presented at SIGCSE 2023 [21] with a "**Bests Paper**" award. *Co-supervision with Prof. Bogdan Simion, Prof. Michael Kaler. 2022-2023

Francesco Strafforello, Niveditha Kani, Rehmat Munir (CSC399) Analyzed the common writing issues in third-year computer science. Presented at SIGCSE 2022 [20]. 2021-2022
*Co-supervision with Prof. Bogdan Simion, Prof. Michael Kaler.

…in Programming Languages

Nick Wong. (CSC492) Explored the use of Large Language Models to guide miniKanren search strategy. 2024

Allan Henriques, Yulong Liu, Mustafa Motiwala, Youzhang Sun, Konrad Wozniak, Patrick Yevych, Mahmoud Zeidan (CSC492/392/D92) Implementation and literature review in dependent types. This course is run in a seminar style to read the book "The Little Typer" to build foundational knowledge. 2023

Daksh Malhotra, Sloan Chochinkov (CSC499, CSC492) Created a web-based debugger interface for the programming language miniKanren. Presented at the 2022 miniKanren workshop [9] 2022

Erin Amer (CSC499) Explored an implementation of a supercompiler for a subset of Scheme. 2021-2022

Jonathan Martin, Maryam Gohargani (CSC492) Create a version of the miniKanren constraint logic programming language that combines logic programming and automatic theorem proving using rewrite strategies. 2021

Malaika Zaidi, Lucas Sandre (CSC392) Build a relational floating-point system in the constraint logic programming language miniKanren. Presented at the 2021 miniKanren workshop [7]. 2021

Ende Jin (CSC494 and CSC495) Create a version of the miniKanren constraint logic programming language that combines logic programming and automatic theorem proving. Presented at the 2021 miniKanren workshop [8]. 2020-2021

Artem Chirkov (CSC492) Wrote a relational interpreter for synthesizing JavaScript programs. Presented at the second miniKanren workshop 2020 [6]. 2019-2020

…in Other Projects

Giang Hui, Hancheng Huang, Shrey Vakil, Ramzi Abu Zeineh. (Paid research opportunity) Longitudinal analysis of problem-solving skills across the computer science curriculum.
*Co-supervision with Prof. Bogdan Simion. 2023-2024

Emily Wu, Qianqian Feng. (CSC492) Built a platformer game. 2023

Departmental and University Service

Writing Development Initiative Selection Committee. 2020-2023
Computer Science POSt Committee. 2021-
Computer Science Curriculum Sub-Committee. 2022-
Computer Science/GIS Teaching Stream Hiring Committee 2020
Computer Science Teaching Stream (CLTA) Hiring Committee 2022-2023
Computer Science Research Stream Hiring Committee 2022
ISUP Teaching Stream Hiring Committee. 2021
Faculty Mentor. 2021-
MCS TA Training. 2020-2022
MCS New Instructor Training. 2021
MCSS (Student Club) Faculty Advisor 2021-

External Service

CSEducation Conferences

Reviewer, Conference on Innovation and Technology in Computer Science (ITiCSE). 2022-
Reviewer, Technical Symposium on Computer Science Education (SIGCSE) 2021-
Program Committee Member, EAAI 2023
Program Committee Member, EAAI Model Assignment 2020-
Reviewer, Western Canadian Conference on Computing Education (WCCCE) 2023
Reviewer, ACM Transactions on Computing Education 2020
Program Committee Member, Koli Calling 2022-

Machine Learning Conferences

Reviewer, Neural Information Processing Systems (NeurIPS) 2019-2022

- **Top 10% of reviewers in 2019.**

Reviewer, International Conference on Machine Learning (ICML) 2020, 2023
Reviewer, International Conference on Learning Representations (ICLR) 2020
Reviewer, International Conference on Machine Learning (ICML) Workshop on Learning and Reasoning with Graph-Structured Data 2019
Reviewed "Applied Machine Learning" book by David Forsyth 2019

Programming Languages Workshops

Program Committee, the Sixth miniKanren Workshop 2024
Co-Chair, Organizing Committee, the Third miniKanren Workshop 2021
Session Chair, Session 2, the First miniKanren Workshop 2019
Reviewed "The Reasoned Schemer 2nd edition" book by Daniel P. Friedman, William E. Byrd and Oleg Kiselyov (listed in the acknowledgements)