

# VICTORIA CHUI

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## EDUCATION

### University of Toronto

Toronto, ON

PhD in Information

Sep. 2023-Present

- Studying human-centered algorithmic design to assist decision-making in healthcare
- Deconstructing and developing predictive models for diabetes diagnosis and complications in Ontario
- Collaborating with stakeholders to automate administrative processes for a health system in Indiana, US

Master of Information - MI (CGPA 4.0/4.0)

2023

- Thesis title: Towards Human-Centered Models in Healthcare: Development of Practical Applications for Surgical Wards
- Selected coursework: computer programming, data analytics, topic modelling, statistics, data visualization, research methods, machine learning, human values in data science

### McGill University

Montréal, QC

Honours Bachelor of Science in Biochemistry – HBSc (CGPA 3.77/4.0)

2021

- Selected coursework: biotechnology, probability and statistics, immunology, anatomy and physiology

## RESEARCH EXPERIENCE

### University of Toronto

Toronto, ON

PhD – Faculty of Information

2023-Present

- Analyzing Canadian health data to deconstruct and improve risk assessment models for diabetes care
- Developing an understanding of community trust regarding healthcare AI in the Peel Region, Ontario
- Under the supervision of Dr. Shion Guha, and in partnership with the Dalla Lana School for Public Health

Master's Thesis – Faculty of Information

2021-2023

- Developed time series models to predict daily surgical case volumes
- Explored the intersection of data science and healthcare to develop human-centered strategies in practice
- Under the supervision of Dr. Shion Guha, and in partnership with Parkview Health, USA

Research Assistant – Faculty of Information

2022-2023

- Analyzed surgical site infection data using clustering and predictive methods
- Scoped the landscape of Canadian child welfare resources and risk assessment models

### McGill University

Montréal, QC

Undergraduate Honours Thesis – Department of Biochemistry

2020-2021

- Developed molecular dynamics simulations to examine IFIT protein and nonstandard-RNA interactions
- Executed simulations on GROMACS software, using Compute Canada ARC systems

## PUBLICATIONS

- **Victoria Chui**, Jessica Pater, Tammy Toscos, and Shion Guha. 2023. Applying Human-Centered Data Science to Healthcare: Hyperlocal Modeling of COVID-19 Hospitalizations. In *Companion Proceedings of the 2023 ACM International Conference on Supporting Group Work (GROUP '23)*. Association for Computing Machinery, New York, NY, USA, 24–26. <https://doi.org/10.1145/3565967.3570979>
- **Victoria Chui**. 2023. *Towards Human-Centered Models in Healthcare: Development of Practical Applications for Surgical Wards*. Master's Thesis. University of Toronto, Toronto, Canada.

## TEACHING

<b>Instructor – University of Toronto</b>	<b>Toronto, ON</b>
INF1340 – Programming for Data Science (50 students)	Summer 2024, 2025
<ul style="list-style-type: none"><li>• Spearheaded syllabus, course material, and weekly schedule development; coordinated TA support</li><li>• Led 1 lecture, 1 x 3 hours, per week for 12 weeks</li><li>• Answered student concerns via email/Quercus/office hours; graded student assignments and projects</li></ul>	
<b>Teaching Assistant – University of Toronto</b>	<b>Toronto, ON</b>
INF2178 – Experimental Design for Data Science (140 students)	Winter 2024, 2025
<ul style="list-style-type: none"><li>• Spearheaded syllabus and assignment development, grading</li><li>• Answered student concerns via email/Quercus/office hours; graded student assignments and projects</li></ul>	
INF1339 – Introduction to Computational Thinking (150 students across 2 sections)	Fall 2023, 2024
<ul style="list-style-type: none"><li>• Led 2 tutorials per week, 2 x 1.5 hours, across 10 weeks</li><li>• Answered student concerns via email/Quercus/office hours; graded student assignments and projects</li></ul>	
CCT202 – Human-Machine Communication (65 students)	Fall 2023
<ul style="list-style-type: none"><li>• Marked weekly discussion responses and one major assignment (15% of grade); Invigilated examinations</li><li>• Responded to student queries via email/Quercus</li></ul>	
<b>Course Development – Centennial College</b>	<b>Toronto, ON</b>
DATA702 – Data Foundations, DATA707 – Qualitative Data	Fall 2024
<ul style="list-style-type: none"><li>• Course development; curating course objectives, deriving weekly outcomes and evaluations</li></ul>	

## COMMUNITY OUTREACH

<b>Doctoral Student Association, Faculty of Information</b>	<b>Toronto, ON</b>
Vice-President	2024-2025
<ul style="list-style-type: none"><li>• Representing and advocating for doctoral student needs at the iSchool, University of Toronto</li></ul>	
<b>University Health Network – Toronto Western Hospital (TWH)</b>	<b>Toronto, ON</b>
Clinical Administrative Hospital Volunteer	2023-Present
<ul style="list-style-type: none"><li>• Performing administrative duties and assisting patients at the TWH Neurology Clinic</li></ul>	
<b>Faculty of Information, University of Toronto</b>	<b>Toronto, ON</b>
Faculty Search Committee Member	2022-2023
<ul style="list-style-type: none"><li>• Assisted search committees for four full-time teaching-stream faculty members at the Faculty of Information, as the student representative</li><li>• Participated in shortlisting and interview rounds</li><li>• Collaborated on job posting descriptions for four different full-time teaching-stream positions</li></ul>	

## AWARDS

PhD Enhancement Award – Faculty of Information	December 2024
Faculty of Information Data Science Hackathon – First Place Winner	March 2023
<ul style="list-style-type: none"><li>• In partnership with Service Canada, Integrity branch</li></ul>	
First-Class Honours Degree (Bachelor of Science)	June 2021
<ul style="list-style-type: none"><li>• Issued by McGill University for honours degree recipients with a CGPA over 3.5</li></ul>	
University of Northern British Columbia Scholar [DECLINED]	Sep. 2016
<ul style="list-style-type: none"><li>• Full tuition scholarship issued to students at the top of their high school cohort (~\$20 000)</li></ul>	