# 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

**Instructor – University of Toronto** **Toronto, ON**

INF1340 – Programming for Data Science (50 students) Summer 2024

- Spearheaded syllabus, course material, and weekly schedule development; coordinated TA support
- Led 1 lecture, 1 x 3 hours, per week for 12 weeks
- Answered student concerns via email/Quercus/office hours; graded student assignments and projects

**Teaching Assistant – University of Toronto** **Toronto, ON**

INF2178 – Experimental Design for Data Science (140 students) Winter 2024, 2025

- Spearheaded syllabus and assignment development, grading
- Answered student concerns via email/Quercus/office hours; graded student assignments and projects

INF1339 – Introduction to Computational Thinking (150 students across 2 sections) Fall 2023, 2024

- Led 2 tutorials per week, 2 x 1.5 hours, across 10 weeks
- Answered student concerns via email/Quercus/office hours; graded student assignments and projects

CCT202 – Human-Machine Communication (65 students) Fall 2023

- Marked weekly discussion responses and one major assignment (15% of grade); Invigilated examinations
- Responded to student queries via email/Quercus

**Course Development – Centennial College** **Toronto, ON**

DATA702 – Data Foundations, DATA707 – Qualitative Data Fall 2024

- Course development; curating course objectives, deriving weekly outcomes and evaluations

## COMMUNITY OUTREACH

**Doctoral Student Association, Faculty of Information** **Toronto, ON**

Vice-President 2024-2025

- Representing and advocating for doctoral student needs at the iSchool, University of Toronto

**University Health Network – Toronto Western Hospital (TWH)** **Toronto, ON**

Clinical Administrative Hospital Volunteer 2023-Present

- Performing administrative duties and assisting patients at the TWH Neurology Clinic

**Faculty of Information, University of Toronto** **Toronto, ON**

Faculty Search Committee Member 2022-2023

- Assisted search committees for four full-time teaching-stream faculty members at the Faculty of Information, as the student representative
- Participated in shortlisting and interview rounds
- Collaborated on job posting descriptions for four different full-time teaching-stream positions

## AWARDS

Faculty of Information Data Science Hackathon – First Place Winner March 2023

- In partnership with Service Canada, Integrity branch

First-Class Honours Degree (Bachelor of Science) June 2021

- Issued by McGill University for honours degree recipients with a CGPA over 3.5

University of Northern British Columbia Scholar [DECLINED] Sep. 2016

- Full tuition scholarship issued to students at the top of their high school cohort (~$20 000)