

# Ian Zhang

## *Curriculum Vitae*

### Contact Information

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### Education

**MSc in Statistics**, University of Toronto 2026

**Honours BSc in Statistics/Mathematics**, University of Toronto 2025

- Advisor: Jun Young Park
- Graduated with high distinction
- Relevant coursework: Machine learning, stochastic processes, statistical inference, methods of multivariate data, real analysis, linear algebra, ordinary and partial differential equations, introduction to computer science and programming

### Publications and Preprints

<sup>†</sup>: Corresponding Author;      \*: Equal contribution

#### Preprints

1. Michael A. Kouritzin, **Ian Zhang**<sup>†</sup>, Jyoti Bhadana, Seoyeon Park 2024  
Markov Processes for Enhanced Deepfake Generation and Detection  
<https://arxiv.org/abs/2411.07993>

### Experience

**Summer Research Trainee**, McGill University 2025

Supervisor: Jianguo (Jeff) Xia

**Research Assistant**, University of Alberta 2023-2024

Supervisor: Mike Kouritzin

### Teaching

#### Teaching Assistant

**MAT137: Calculus with Proofs** *Fall 2025 & Winter 2026*

**STA302: Methods of Data Analysis I** *Fall 2025*

**STA437: Methods of Multivariate Data** *Winter 2026*

## Presentations

### Talks

**2025 SSC Annual Meeting in Saskatoon** 2025

Presented *Markov Processes for Enhanced Deepfake Generation and Detection* in the Probability session.

**Third Joint SIAM/CAIMS Annual Meetings (scheduled)** 2025

Presented *Markov Processes for Enhanced Deepfake Generation and Detection* in the Machine Learning and Stochastic Processes session.

### Posters

**The Thirteenth Annual Canadian Statistics Student Conference** 2025

Presented *Comparing Exact and Approximate Inference for Spatial Autocorrelation Tests: A Power Analysis*.

## Honours and Awards

**Anna & Alex Beverly Memorial Fellowship** 2025

Awarded by University College (University of Toronto) for general proficiency during my undergraduate degree.

**NSERC Undergraduate Student Research Award (x2)** 2023, 2024

Awarded by the University of Alberta to research Markov process methods for deepfake generation and detection.

**Jack Zwaigenbaum Scholarship** 2022

Awarded by University College (University of Toronto) for academic excellence in my first year of undergraduate studies.

**Dean's List Scholar (x4)** 2022, 2023, 2024, 2025

Awarded by the Faculty of Arts and Science (University of Toronto) for maintaining academic excellence every year of my undergraduate degree.

## Grants

**CSSC Travel Grant** 2025

Awarded to full-time Canadian students presenting a poster or giving a talk at the Canadian Statistics Student Conference.

## Services

### Conferences

**Session chair, 2025 Third Joint SIAM/CAIMS Annual Meetings (scheduled)**

Chaired the “Machine Learning and Stochastic Processes” session.

## Other

Languages Spoken: English (native), Mandarin (native), Japanese (intermediate)

Memberships: Statistical Society of Canada