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# MIAOSHIQI LIU

Downtown Toronto, Canada

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<http://shiqi.writingspace.cc>

## PROFESSIONAL SUMMARY

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Miaoshiqi LIU is a Ph.D. candidate in the Department of Statistical Sciences at the University of Toronto. In 2019, she earned a bachelor's degree in Mathematics from Tsinghua University, Beijing, China. Her research interests include Mathematical Statistics, Nonparametric Estimation, and Nonstationary Time Series Analysis.

## EDUCATION

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|---------------------------------|--|
| 09/2019 – 07/2024<br>(Expected) | <b>Ph.D.: Statistical Sciences</b><br><b>University of Toronto</b> - Toronto, Canada   |
| 08/2015 – 07/2019               | <b>Bachelor of Science: Mathematical Sciences</b><br><b>Tsinghua University</b> - Beijing, China <ul style="list-style-type: none"><li>• GRE: Verbal 159/170, Quantitative 170/170, Analytical Writing 4.5/6</li><li>• TOEFL iBT: 108/120 (R28, L26, S27, W27)</li></ul> |

## RESEARCH HISTORY

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|--------------------------------|--|
| 08/2020 – now<br>(In progress) | <b>Simultaneous Nonparametric Inference Under Complex Temporal Dynamics</b><br><b>Instructor: Zhou Zhou</b><br><b>University of Toronto</b> – Toronto, Canada <ul style="list-style-type: none"><li>• A unified framework on how to conduct a large class of hypothesis testing on varying coefficient model with time-varying nonstationary covariates and error process</li><li>• Techniques: Bahadur Representation, Gaussian Approximation, Multiplier Bootstrap</li></ul> |
| 01/2021 - 06/2021              | <b>Seminar Project</b><br><b>Instructor: Michael Evans</b><br><b>University of Toronto</b> – Toronto, Canada <ul style="list-style-type: none"><li>• Seminar work on constructing reasonable plausible regions based on relative belief inference</li></ul>  |
| 02/2019 - 06/2019              | <b>Undergraduate Thesis</b><br><b>Instructor: Lijian Yang, Ying Yang</b><br><b>Tsinghua University</b> – Beijing, China <ul style="list-style-type: none"><li>• Literature review thesis on varying coefficient model for gene-environment interaction</li></ul>   |
| 07/2018 - 09/2018              | <b>Summer Intern</b>   |

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**Instructor: Xuming He, Yang Chen**

**University of Michigan, Ann Arbor** – Ann Arbor, Michigan

- A causal-inference project investigating the association between ICU patients' social visits and survival, based on information extracted from nurses' notes
- Techniques: Natural Language Processing, Logit Regression, Propensity Score Matching

## **PUBLICATIONS AND PREPRINTS**

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Evans, Michael, Miaoshiqi Liu, Michael Moon, Sabrina Sixta, Siyi Wei, and Siyue Yang. "On some problems of confidence region construction." *arXiv preprint arXiv:2109.05332* (2021).

## **SKILLS**

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| • Language: Mandarin (native), English (fluent), Japanese (Intermediate) | • Programming: R, Matlab, C++, SQL, Python, LaTeX |
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## **HOBBIES**

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- Singing (being an Alto in Tsinghua Chorus)
- Table Tennis
- Cooking