# Yulong Liu

♠ yulong.me

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#### Education

#### Honours B.Sc. Computer Science Specialist, Mathematics Major

2021 ~ Present

University of Toronto, Toronto, Canada

• High distinction with GPA 3.90/4.00

# Papers & Talks

Characterisation of Languages for Single State PDAs

September 2024

Yulong Liu, *U*(*t*)-*Mathazine 2024 Issue, University of Toronto* 

A Computational Approach to String Figures

November 2023

Yulong Liu, UTSC Computer and Mathematical Sciences Undergraduate Seminar

Safe Code Generation: Metaprogramming with Type Theory

October 2023

Yulong Liu, Youzhang Sun, UTSC Computer and Mathematical Sciences Research Symposium

Introduction to Staged Compilation and Two-Level Type Theory

August 2023

Yulong Liu, Youzhang Sun, Reading Course on Dependent Types

A Parsimonious Approach to Pushdown Automata

September 2023

Yulong Liu, *U(t)-Mathazine 2023 Issue, University of Toronto* 

# **Academic Experience**

**Research Assistant** 

May 2024 ~ September 2024

Undergraduate Summer Research Program (USRP), University of Toronto, Canada

- "Reason About Computational Effects" advised by Professor Ningning Xie
- Received the University of Toronto Excellence Awards (UTEA) with \$7500 stipend

**Teaching Assistant** 

January 2023 ~ Present

2022 ~ 2024

- University of Toronto, Canada
- CSCC73 Algorithm Design and Analysis (Fall 2024)
- CSCC24 Principles of Programming Languages (Winter 2024)
- CSCB36 Theory of Computation (Summer 2023, Fall 2023, Summer 2024, Fall 2024)
- CSCA67 Discrete Mathematics (Winter 2023)

Guest Lecturer June 2023 ~ May 2024

CSCB36 - Theory of Computation, University of Toronto, Canada

- Introduction to Deterministic Finite State Automata (Summer 2023)
- Closure Properties of Regular Languages using State Machines (Summer 2023)
- Introduction to Propositional Logic (Fall 2023)

• Dean's List (for maintaining a GPA above 3.5)

• Program Correctness for Iterative Programs (Summer 2024)

### **Honors & Awards**

#### University of Toronto, Department of Computer and Mathematical Sciences

| Teaching Assistant Award  | September 2024 |
|---|----------------|
| • University of Toronto Excellence Awards with \$7500 stipend                         | May 2024       |
| • Professor Nominee for contributions in CSCC24 - Principles of Programming Languages | March 2024     |
| Professor Nominee for contributions in CSCB36 - Theory of Computation                 | March 2024     |