

Education

University of Toronto (UofT)

2024 – Present PH.D., COMPUTER SCIENCE
Supervisor: Akshayaram Srinivasan
Research Area: Theoretical Computer Science, Cryptography
GPA: 4.00 / 4.00

2022 – 2023 M.SC., COMPUTER SCIENCE
Supervisor: Michael Molloy
Thesis: *Frugal Colouring of Graphs with Girth At Least Five*
GPA: 4.00 / 4.00

The University of British Columbia (UBC)

2014 – 2019 B.SC., COMPUTER SCIENCE, CO-OP, WITH DISTINCTION
GPA: 90.6%
3rd & 4th Year GPA: 4.33 / 4.33

Nanjing University (NJU)

2012 – 2014 B.SC., ATMOSPHERIC SCIENCES (transferred to UBC)
GPA: 4.49 / 5.00
Rank: 1st in class in Academic Year 2012 - 2013

Publications

2026 Yuval Ishai, Ziyang Jin, Naty Peter, Akshayaram Srinivasan.
Non-Interactive Secure Computation with Constant Communication Overhead
Advances in Cryptology – EUROCRYPT 2026.

Other Writing

2026 Ziyang Jin.
Classical Verification of Quantum Computations: Ziyang Jin Interprets Yael Kalai
Fields Notes (Fields Institute Newsletter), 21:7 (Winter 2026), pp. 19-21, the Fields Institute for Research in Mathematical Sciences.

Theses

2023 *Frugal Colouring of Graphs with Girth At Least Five*
ABSTRACT: We proved that for any graph with girth at least five and maximum degree Δ , there exists a $(1 + o(1)) \frac{\Delta}{\ln \Delta}$ -colouring such that for every vertex v , no colour appears more than $\text{poly}(\log \Delta)$ times in the neighbourhood of v . This work uses a technique called the semi-random method (a.k.a. the Rödl Nibble) and bases on the proof by Kim for bounding the chromatic number of girth five graphs. We use a non-trivial lopsided Lovász Local Lemma to complete the colouring.
SUPERVISOR: Michael Molloy
Master's Thesis, University of Toronto

Professional Service

External Reviewer: ICALP 2024, CRYPTO 2025, TCC 2025, CRYPTO 2026

Talks

Theory Seminar, UNIVERSITY OF TORONTO

Mar 2026 *Non-Interactive Secure Computation with Constant Communication Overhead*

Theory Reading Group, UNIVERSITY OF TORONTO

Jun 2024 *Public-Key Encryption, Local Pseudorandom Generators, and the Low-Degree Method*

Awards and Honors

2022 **Ontario Graduate Scholarship** at the University of Toronto

2018 **Faculty of Science International Student Scholarship** at UBC

2018 **Department of Computer Science Scholarship** at UBC

2018 **nwHacks 2018** hackathon award winner

2017 **Microsoft Tuition Scholarship** for computer science undergraduate students

2013 **National Scholarship (Top Tier)** at Nanjing University

Teaching Experience

Course Instructor, UNIVERSITY OF TORONTO

Fall 23 *CSC 236 Introduction to the Theory of Computation* (LEC 5101: 111 students)

Winter 23 *CSC 373 Algorithm Design, Analysis, and Complexity* (LEC 0301: 95 students)

Teaching Assistant, UNIVERSITY OF TORONTO

Fall 25 *CSC 463 Computational Complexity and Computability*

Fall 25 *CSC 364 Foundations of Computer Security* (LEAD TA)

Winter 25 *CSC 165 Mathematical Expression and Reasoning for Computer Science* (LEAD TA)

Summer 25, Fall 24 *CSC 263 Data Structures and Analysis*

Winter 24, 26 *CSC 310 Information Theory*

Winter 24, 26 *CSC 373 Algorithm Design, Analysis, and Complexity* (LEAD TA)

Work Experience

Amazon, Inc. (Amazon Development Centre Canada)

2019 – 2022 SOFTWARE DEVELOPMENT ENGINEER II at AWS S3 and AMAZON ADS

* Launch a book recommendation system in the UK and DE Amazon retail website

* Design a distributed algorithm for traffic heat-management that improves speed by 100%

* Design a domain-specific language for S3 Index to automatically partition the database

* Mentor student intern and successfully launch intern project to help intern get return offer

Volunteer Experience

2023 – Present Main contributor to the [Theory Group's website Github](#) at the University of Toronto

Nov 2025 Volunteer for [Ontario Cryptography Day](#) at the Fields Institute

Oct 2025 Volunteer for [DCS Graduate School Open House](#) at the University of Toronto

Mar 2025 Student Ambassador and Panelist for [DCS Grad Visit Day](#) at the University of Toronto

Fall 2024 Mentor at the [Graduate Application Assistance Program](#) at the University of Toronto

Fall 2023 Administrator for the [Theory Student Seminar](#) at the University of Toronto

2022 – 2023 Social coordinator at [Computer Science Graduate Society \(CSGS\)](#) at the University of Toronto