
CONTACT INFORMATION

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LANGUAGES

Fluent: English, French. Proficient: Mandarin, Italian.

EDUCATION

M.Sc. Mathematics

McGill University

May 2021 – present

Montréal, QC, Canada

Supervisor: Luc Devroye. CGPA: 4.0/4. Thesis: “Structural properties of conditional Galton–Watson trees.”

B.Sc. Joint Honours Mathematics and Computer Science

McGill University

September 2017 – April 2021

Montréal, QC, Canada

Minor: Linguistics. CGPA: 3.84/4.

Exchange semester

Faculty of Mathematics and Physics, Charles University

February – June 2019

Prague, Czech Republic

Grade: 1 on all courses (highest score attainable).

WORK AND VOLUNTEER EXPERIENCE (* indicates a paid position)

***Visiting teaching assistant**

Bocconi University

July 2022

Como, CO, Italy

Teaching assistant for a two-week summer school on random structures and combinatorial statistics, which was organised by Bocconi University in collaboration with Oxford University and Imperial College London. Led problem sessions in the afternoons; around forty graduate-level students were in attendance.

Mentor

Department of Mathematics and Statistics, McGill University

January – April 2022

Montréal, QC, Canada

Met with two undergraduate students as part of the Directed Reading Program on a weekly basis to give them an introduction to research-level mathematics in a casual setting. Focused on topics in extremal combinatorics related to the increasing triples problem, as well as topics related to Khovanskii’s theorem.

***Teaching assistant**

School of Computer Science, McGill University

September – December 2021

Montréal, QC, Canada

Teaching assistant for COMP 690, a graduate-level course on the probabilistic analysis of algorithms. Held office hours twice a week and responsible for grading of assignments.

First responder

McGill Student Emergency Response Team

October 2017 – September 2021

Montréal, QC, Canada

On call on a weekly basis to provide emergency medical care at campus residences overnight as well as at university events such as frosh, sports games, and formals. Attend team training sessions twice a month to keep first-aid skills up-to-date. Most recent first responder certification: September 2020.

***Grader**

Department of Mathematics and Statistics, McGill University

September 2019 – April 2021

Montréal, QC, Canada

Grading of assignments in the following courses:

- Winter 2021: MATH 457 Honours Algebra 4
- Fall 2020: MATH 323 Probability, MATH 456 Honours Algebra 3
- Winter 2020: MATH 240 Discrete Structures
- Fall 2019: MATH 235 Algebra 1

- *Helpdesk tutor** **September 2018 – April 2021**
Computer Science Undergraduate Society Helpdesk *Montréal, QC, Canada*
 Held twice-weekly office hours to tutor students in a variety of undergraduate courses. Topics covered include elementary data structures and algorithms, command-line scripting, and functional programming. Recipient of the Tomlinson Engagement Award for Mentoring.
- Vice President, Academic** **May 2019 – January 2020**
Society of Undergraduate Mathematics Students *Montréal, QC, Canada*
 Oversaw academic affairs within SUMS council and acted as liaison between the undergraduate community and mathematics faculty. Duties included representing the student body at department meetings, organising midterm and final review sessions, and helping students with academic concerns.
- *Painter** **May – August 2018**
Bakir Contracting Corp. *Edmonton, AB, Canada*
 Exterior painting (siding, decks, fences, trim, etc.) for residential clients.
- *Infantryman** **August 2015 – August 2017**
Singapore Armed Forces *Singapore*
 Held appointment of machine-gun team commander in the 3rd Battalion, Singapore Infantry Regiment. Led a six-person team consisting of a medic, signaller, sensor, and two-machine gunners within a rifle platoon.
- *Tutor** **September 2014 – June 2015**
École Secondaire Beaumont Composite High School *Beaumont, AB, Canada*
 Tutored various students in grades 4 through 11 in chemistry, physics, math, and French.
- *Summer camp counsellor** **June – August 2014**
YoWoChAs Outdoor Education Centre *Fallis, AB, Canada*
 Led children aged 4–15 through various activities (e.g. archery, canoeing, zipline) at a sleepaway camp.

AWARDS AND FUNDING

- NSERC Canada Graduate Scholarship – Master’s** (\$17,500) **May 2021 – April 2022**
NSERC Undergraduate Student Research Award (\$7,125) **May – August 2020**
Governor General’s Academic Medal – Bronze **June 2015**

PAPERS

- P5.** (with Jad Hamdan and Jonah Saks) The lattice of arithmetic progressions. *Australasian Journal of Combinatorics* **84**,3 (2022), 357–374. [arXiv:2106.05949]
P4. (with Luc Devroye and Rosie Y. Zhao) On the peel number and the leaf-height of a Galton–Watson tree. To appear in *Combinatorics, Probability and Computing*, 20 pp. [arXiv:2106.14389]
P3. (with Anna M. Brandenberger, Luc Devroye, and Rosie Y. Zhao) Leaf multiplicity in a Bienaymé–Galton–Watson tree. *Discrete Mathematics and Theoretical Computer Science* **24**,1 (2022), #7, 16 pp. [arXiv:2105.12046]
P2. (with Anna M. Brandenberger and Luc Devroye) Root estimation in Galton–Watson trees. *Random Structures and Algorithms* **61**,3 (2022), 520–542. [arXiv:2007.05681]
P1. (with Rosie Y. Zhao) Arithmetic subsequences in a random ordering of an additive set. *Integers: Electronic Journal of Combinatorial Number Theory* **21** (2021), #A89, 19 pp. [arXiv:2012.12339]

SUBMITTED PAPERS

- (with Jonah Saks) Alternating-sum statistics for certain sets of integers. *arXiv:2206.12535* (2022), 12 pp.