Mark Schachner

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EDUCATION

The University of Chicago Chicago, IL
Bachelor of Science with Honors, Mathematics *June 2021*

Cornell University Ithaca, NY
Ph.D. Student, Mathematics | MS, Computer Science *August 2021 – Present*

PUBLICATIONS AND PREPRINTS

AWARDS AND FELLOWSHIPS

NSF Graduate Research Fellowship August 2021 - Present
$138,000

EXPERIENCE

Teaching Assistant / Counselor July 2020 – August 2021
Bridge to Enter Advanced Mathematics *Los Angeles, CA*
- Summer outreach program to help underserved students enter advanced study in mathematics
- Responsibilities included supervising problem sessions and program activities, as well as working directly with students to develop critical thinking and creative problem-solvinng skills

TEACHING

Recitation Teaching Assistant, MATH 1910 September 2022 – December 2022
Cornell Mathematics Department *Ithaca, NY*
- Teaching assistant for MATH 1910 Calculus for Engineers
- Gave weekly recitations to students using active learning techniques

Recitation Teaching Assistant, MATH 2210 September 2022 – December 2022
Cornell Mathematics Department *Ithaca, NY*
- Teaching assistant for MATH 2210 Linear Algebra
- Gave weekly recitations to students using active learning techniques

RESEARCH & EXPOSITORY TALKS

Context-free Groups and the Muller-Schupp Theorem
Cornell Logic Seminar 16 November 2021

Fast growth in the Følner function for Thompson's group F
Cornell Logic Seminar 7 December 2021

Distributive algorithms, the Lovasz Local Lemma, and descriptive combinatorics
Cornell Logic Seminar 2 February – 22 Februrary 2022

Nonstandard Analysis: the Calculus You Won't Be Taught
Cornell Olivetti Seminar 29 March 2022

One Diagonal Theorem to Rule Them All
Cornell Homotopy Student Seminar 9 May 2022

A Birdwatcher's Guide to Combinatory Logic
Cornell Olivetti Seminar 13 September 2022

The Effective Topos and You
Cornell Homotopy Student Seminar 2 December 2022

Test-giving & Test-taking
Cornell Teaching Seminar 22 March 2022

Service and Outreach

Organizer / Participant, Ph.D. Mentoring Program
May 2022 – May 2023

Cornell University Mathematics Department
Ithaca, NY

- Collaborated with Sara Stephens to coordinate department-wide program to match matriculating Ph.D. students with experienced student mentors
- Additionally served as mentor in program

Instructor, Little Circle
January 2023 – May 2023

Cornell University Mathematics Department
Ithaca, NY

- With Alexander Vidinas, developed and presented weekly lessons in departmental outreach program

Technical Skills

Languages: Haskell, Python