

# NICHOLAS CHRISTO

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## EDUCATION

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**University of Illinois Chicago (UIC)** August 2020 - Current  
PhD, Mathematical Computer Science -  
Advised by Marcus Michelen  
Department of Mathematics, Statistics, and Computer Science  
Expected Graduation Date May 2026.

**University of Illinois Chicago** August 2020 - December 2022  
Masters of Science, Mathematical Computer Science  
Department of Mathematics, Statistics, and Computer Science

**Western Michigan University** May 2016 - April 2019  
Bachelor of Arts, Mathematics.  
Graduated Summa Cum Laude  
Overall GPA: 3.97 Minor in Philosophy

## WORK EXPERIENCE

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**Visiting Lecturer, UIC** Fall 2025  
Two sections of Math 180 (Calculus I) and one section of STAT 101 (Introduction to Statistics).

**MSCS Department Organizer for Undergraduate Mentoring Program** Fall 2025-  
Developing and implementing “a mentoring program for MSCS undergraduate with the goal of promoting academic and social interaction, improved understanding of resources, and fostering a sense of belonging among MSCS students.”

**Lead Instructor, Young Scholars Program at UIC** Summers 2022, 2023, 2024, 2025  
YSP is a free four week summer math program available to any Chicago-area high school student, regardless of ability, to teach and let them explore new topics in mathematics and prepare them for STEM subjects in college.

Handled day-to-day operations, gave talks, wrote problem sets, inviting speakers, oversaw 5 graduate student instructors and 8 undergrad assistants.

**Graduate Instructor, YSP** Summer 2021

**Teaching Assistant Coordinator (TAC)** Fall 2024  
For Math 589: Teaching of Mathematics mandatory course for first year teaching assistants to aid in developing teaching skills and methods.

## Instructor of Record

STAT 361: Elements of Statistical Elements Spring 2026

Math 294 Emerging Scholar Program (ESP) for 215: Instroduction to Advanced Mathematics. Spring 2025

- Math 179: ESP for Calculus I Spring 2024, Fall 2023, S23, F22, S22.
- Math 178: a pilot “Catch course” for Calculus I Fall 2023.
- LAS 110: Experience UIC Fall 2021

**Assistant on ADA/Accessibility Project** Fall 2024 - Spring 2025

Over the year, investigated ways making teaching and mathematical documents accessible and converting already existing documents into ones that were accessible. Creating both templates to use and short guides.

**Teaching Assistant, UIC** August 2020 - Current

Math 180: Calculus I Spring 2025, S24, F23, S23, F22, S22, F21, S21

MATH 121: Precalculus Fall 2020

## Grader

- MCS 401: Algorithms I Summers 2024, 2023, 2022

**Math Circles of Chicago, MC2** September 2023 - December 2023  
*Instructor*

Ran hour long math activities and lessons at Gads Hill Community Center roughly once a week.

Gads Hill Community Center in the Pilsen neighborhood (South Side) of Chicago is an after school program servicing the families living in the neighborhood.

**Private High School Tutor** September 2023 - Current

- Tutored one high school student taking Algebra II and Intro to Statistics, parent mentioned a big improvement in grades over the time frame. (Fall 2023-Fall 2024)

Tutored three high school students in Calculus BC (Spring 2024, Fall 2024-Spring 2025)

- Tutored high school student hoping to test out of Accelerated Pre-calculus (Summer 2025)

**Western Michigan University** September 2019-April 2020  
*Teaching Assistant*

- Taught three lab sections of MATH 1140: Excursions in Mathematics

**Western Michigan University** September 2016-April 2019  
*Math Lab Tutor*

Helped students from classes ranging from Pre-Algebra to Calculus II, developing critical thinking and understand of mathematical concepts.

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## IN-CLASSROOM TEACHING EXPERIENCE

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Teaching Assistant, University of Illinois - Chicago	<i>August 2020 - Current</i>
Teaching Assistant, Western Michigan University	<i>September 2019 - April 2020</i>
70 Hour Math Pre-Internship, Vicksburg Middle School, Vicksburg, MI	<i>Spring 2018</i>
20 Hour P.E. Pre-Internship, Comstock High School, Kalamazoo, MI	<i>Spring 2018</i>

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## RESEARCH

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1. Realizability of hypergraphs and high-dimensional contingency tables with random degrees and marginals. (with M. Michelen) *Revisions sent to IMRN.* (2024).
2. The set of ratios of derangements to permutations in digraphs is dense in  $[0, 1/2]$ . (with B. Austhof, P. Bennett) *Electronic Journal of Combinatorics.* 29 (2022), #P1.8.

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## CONFERENCES ORGANIZED

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03/2025: Co-Organizer 2026 GSCC (Graduate Student Combinatorics Conference), UIC, Chicago.

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## INVITED TALKS

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- November 12, 2024 Probability Seminar at Northwestern University
- October 2, 2024 Combinatorics and Probability Seminar at UIC
- November 8-10, 2025 IDEAL Get Ready for Research Workshop at UIC.
- June 2-4, 2023 IDEAL Get Ready for Research Workshop at UIC.
- May 6, 2023 IDEAL High School Teacher Workshop at UIC
- March 10, 2023, *Partitions and Contingency Tables*, Joint Research Talk for UIC's Visiting Student Day

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## ACCEPTED TALKS

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The 22nd International Conference on Random Structures & Algorithms, August 4-8, 2025 at TU Wien  
Graduate Student Combinatorics Conference 2025, March 15-17, 2025 at University of Southern California

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## ACADEMIC ACHIEVEMENTS

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2025 Graduate Student Excellence in Teaching and Mentoring Award Honorable Mention - UIC Graduate College

MSCS Department Teaching Award - UIC 24-25

MSCS Department Graduate Student Service Award - UIC 23-24

Professor Herbert Alexander Award - UIC MSCS 23-24

Bernard Kurtin Scholarship - UIC MSCS 22-23

Department of Mathematics Service Award - WMU 19-20

Charles H. Butler Teaching Award (“in recognition of their excellence in teaching over an extended period”) - WMU 19-20

Graduated Summa Cum Laude - WMU

Colonel Charles E. Bayliss Scholarship, WMU 18-19, & 17-18

Robert Meagher Memorial Scholarship, WMU 18-19

Clarke Senior Award, WMU 18-19

Fred A. Beeler Memorial Scholarship, WMU 17-18

## SERVICE & VOLUNTEER EXPERIENCE

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Co-Founder, Co-Organizer of the Directed Reading Program (DRP) at UIC for Undergrads

Fall 2023-Summer 2025

Directed Reading Program Mentor

Spring 2024 - Current

- mentee: Elijah Siajunze, Spring, Summer 2025
- mentee: Will Brown, Spring 2025
- mentee: Sebastian Tous, Spring, Summer, Fall 2024

Graduate Helper for Sonia Kovalevsky Math Day

November 2024

Graduate Helper for Math & Physics day in Chicago

June 2024

UIC MSCS Department Graduate Ambassador - Helped to recruit graduate students to UIC through open houses, panels, meetings, mentoring

2021-Current

MSCS Department Graduate Student Rep to UIC’s Graduate Student Council Fall 2023 - Spring 2024

Member of the UIC MSCS Graduate Faculty Mentoring Award Committee Spring 2023, 2024, & 2025

Judge for QED, High and Middle School Math Fair run by Math Circles of Chicago

Fall 2023, 2024

Host of panel on REUs for UIC Math Club

Fall 2025

Host of panel on Graduate School for UIC Math Club

Fall 2025

Panelist on Graduate School for UIC Math Club

Fall 2024

Panelist on REUs for UIC Math Club

Fall 2023

Symbols of Inclusion Member and Graduate Mentor (UIC)

Fall 2022 - Current

Mathematics Graduate Student Association (MGSA) Co-President (UIC)

Fall 2021 - Spring 2022

Co-Organizer of Graduate Student Colloquium (UIC)

Spring 2022

President of AMS Student Chapter at UIC

2021-2022

Math and Science Fair for Kalamazoo Middle Schools

Spring 2019

Precalculus Classroom Assistant,

Summer 2018

Special Olympics Michigan - Unified Basketball,

6 hours, February 2018

PeaceJam Slam at WMU,

10 hours, November 2017

## **TECHNICAL KNOWLEDGE**

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### **Familiar Software & Tools**

Latex, Maple, MATLab, html, QuickBooks.  
Python through INMAS workshops (2021-2022)  
Data Science Certificate through Erdős Institute (Spring 2024).

## **LANGUAGE COMPREHENSION**

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- Italian - B1 (by end of Spring 2026)
- French - A2 (by end of Spring 2026)