

# JOHN SOLAK

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Second year PhD student in Mathematics at the University of Illinois at Chicago.  
Received Bachelor's Degree in Mathematics at the University of Illinois at Urbana-Champaign with High Distinction. Received dual minors: Philosophy and Spanish.

## EDUCATION

**AUGUST 2023 – MAY 2029**

**PHD IN MATHEMATICS**, UNIVERSITY OF ILLINOIS AT CHICAGO

Sample Graduate-Level Coursework:

*Advanced Topics in Logic, a course in Computability Theory*  
*Simple Theories (Reading Course) w/ James Freitag and Gabriel Conant*  
*O-Minimality and Applications (Reading Course) w/ Ronnie Nagloo*  
*Second Course in Abstract Algebra II*  
*Model Theory II*  
*Differentiable Manifolds I*  
*Algebraic Topology I*  
*Teaching and Presentation of Mathematics*  
*Mathematical Logic*

**AUGUST 2020 – MAY 2023**

**B.S. IN MATHEMATICS**, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

*Graduated with High Distinction recognition from the Math Department*

Sample Coursework:

*(Graduate-level) General Topology*  
*Algebraic Topology (Independent Study) w/ Prof. Matthew Ando*  
*Set Theory and Topology*  
*Complex Variables (Analysis)*  
*Real Analysis*  
*Intro to Combinatorics*  
*Probability Theory*  
*Intro Partial Differential Equations*  
*Intro to Computer Science (Java)*

## RESEARCH AND FURTHER STUDY

**SPRING 2024-CURRENT**

**LHS, UIC's Graduate Student Logic Seminar**

**SUMMER 2022- FALL 2022**

**Undergraduate Research**, POLYMATH JR. UNDER PROF. JOHANNA FRANKLIN

SUMMER 2022

**Topology Workshop**, UNIVERSITY OF NOTRE DAME

SPRING 2022

**Undergraduate Researcher**, ILLINOIS GEOMETRY LAB (IGL) REU UNDER PROF.  
FELIX LEDITZKY

## PRESENTATIONS

JANUARY 6, 2023

**Aspects of Kolmogorov Complexity**, JMM 2023

HYNES CONVENTION CENTER, BOSTON, MA

OCTOBER 21, 2022

**Aspects of Kolmogorov Complexity**, MATHEMATICS UNDERGRADUATE FRIDAY  
SEMINAR

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

MAY 5, 2022

**Quantum Capacity Bounds and Semidefinite Programming**, IGL (END OF SEMESTER)  
POSTER SESSION

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

## TEACHING EXPERIENCE

- Instructor Math 179 (Emerging Scholars Program Workshop for Calculus I), SP 2025
- TA MATH 180 (Calculus I), SP 2025
- TA MATH 165 (Business Calculus), FA 2024
- Co-Instructor, Math Circles of Chicago, FA 2024
- TA MATH 110 (College Algebra), SU 2024
- TA MATH 125 (Elementary Linear Algebra), SP 2024
- TA MATH 121 (Precalculus), FA 2023
- Tutoring Middle School and High School-level Mathematics

## SKILLS

- LATEX
- Fluency in Spanish
- Java (coding)