

# JOHN SOLAK

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Fourth 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:

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

**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*  
*Real Analysis*  
*Intro to Combinatorics*  
*Probability Theory*  
*Intro Partial Differential Equations*  
*Intro to Computer Science (Java)*

## SELECTED PRESENTATIONS

APRIL 25, 2026

**A Minimal Introduction to O-minimality** GRADUATE STUDENT CONFERENCE IN LOGIC  
XXVI

UNIVERSITY OF ILLINOIS CHICAGO

OCTOBER 8, 2025

**Is O-minimal Topology too Tame?** LOUISE HAY (GRAD STUDENT) LOGIC SEMINAR  
UNIVERSITY OF ILLINOIS CHICAGO

FEBRUARY 17, 2025

**Why it's so Hard to Talk to Your Topologist Friends,** LOUISE HAY (GRAD STUDENT)  
LOGIC SEMINAR  
UNIVERSITY OF ILLINOIS CHICAGO

JANUARY 6, 2023

**Aspects of Kolmogorov Complexity,** JMM 2023  
HYNES CONVENTION CENTER, BOSTON, MA

MAY 5, 2022

**Quantum Capacity Bounds and Semidefinite Programming,** IGL (END OF SEMESTER)  
POSTER SESSION  
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

## RESEARCH AND FURTHER STUDY

FALL 2025-CURRENT

**UIC (Faculty) Logic Seminar**

SPRING 2024-CURRENT

**Louise Hay (Grad Student) Logic Seminar**

SUMMER 2022- FALL 2022

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

SUMMER 2022

**Topology Workshop,** UNIVERSITY OF NOTRE DAME

## TEACHING EXPERIENCE

- Instructor Young Scholars Program at UIC, SU 2026
- Co-Instructor, Math Circles of Chicago, FA 2024
- TA Experience: MATH 181 (Calculus II), SP 2026; MATH 180 (Calculus I), SP 2025, FA 2025; MATH 165 (Business Calculus), FA 2024; MATH 110 (College Algebra), SU 2024; MATH 125 (Elementary Linear Algebra), SP 2024; MATH 121 (Precalculus), FA 2023
- Instructor Math 179 (Emerging Scholars Program Workshop for Calculus I), SP 2025
- Tutoring Middle School and High School-level Mathematics

## **SKILLS**

- Fluency in Spanish
- Java (coding)