

# KAY THOMPSON

Chicago, IL ◦ [kayt3@uic.edu](mailto:kayt3@uic.edu) ◦ [kaythmp.github.io](https://github.com/kaythmp)

## EDUCATION

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### University of Illinois at Chicago

PhD in Mathematics

2022 - Present

### University of Illinois at Urbana-Champaign

Bachelor of Science in Mathematics with Highest Distinction  
Minor in Physics

2018 - 2022

## EXPERIENCE

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### Theorem Proving in Lean

Illinois Geometry Lab

2020 - 2021

*Urbana, IL*

- Worked with faculty mentor Philipp Hieronymi to formalize model theory into Lean, an interactive theorem proving language built on type theory.
- [github.com/vaibhavkarve/igl2020](https://github.com/vaibhavkarve/igl2020)

### Student Lab Worker

University of Illinois Nuclear Physics Laboratory

2021

*Champaign, IL*

- Assisted in the development of materials for the sPHENIX project at Brookhaven National Lab

## TEACHING

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**Instructor, SEMW** *Summer Enrichment Mathematics Workshop (UIC)* Leading a group of rising freshmen through an intensive, 15 hour/week workshop in order to increase their mathematical ability and help them place into higher level courses. (Summer 2023)

**Teaching Assistant, Math 110** *College Algebra (UIC)* Leading an online discussion section through an expedited version of the course. Grading exams and quizzes (Summer 2023)

**Teaching Assistant, Math 121** *Precalculus (UIC)* Led three discussion sections per semester of 20 students each through weekly worksheets, presentations, and quizzes. Fostered an active learning environment during group work time and prepared short topical lectures for each section. Held office hours both for my students and any other students seeking help with math. Graded exams and quizzes. (Fall 2022, Spring 2023)

**Grader, Math 213** *Discrete Math (UIUC)* Graded homework and exams of over 70 students, providing meaningful feedback in a timely manner. Held office hours to assist students with homework, exam preparation, and general understanding of the course content. (Fall 2021)

## TALKS

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**Louise Hay Logic Seminar** *The Generalized Fraïssé Construction*

17 Apr, 2023

**Louise Hay Logic Seminar** *The Topos-Theoretic Approach to Forcing*

21 Nov, 2022

## SERVICE

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### OSTEM UIUC

2020 - 2022

- Provided guidance on academic and career planning for younger LGBT students in STEM.

### Hesed House Homeless Shelter

*Aurora, IL*

2011-2018

- Organized the donation of over \$2,000 of necessary materials, then planned and executed a project constructing warehouse shelving for the shelter.

- Provided guests with a welcoming, friendly environment and assisted with meal service and preparation.