

KAY THOMPSON

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EDUCATION

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

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

Student Lab Worker

2021

University of Illinois Nuclear Physics Laboratory

Champaign, IL

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

TEACHING

Teaching Assistant, Math 121 Precalculus (UIC) Led three discussion sections 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. Graded exams and quizzes.

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.

TALKS

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

21 Nov, 2022

SERVICE

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.