

EDUCATION	M.A. Mathematics	June 2022
	University of California–Santa Cruz, Santa Cruz, CA Thesis: “Stable ∞ -categories and their Homotopy Categories”	
	B.S. Physics, Mathematics	June 2009
	University of Iowa, Iowa City, IA	
WORK EXPERIENCE	AI Training Math Expert	April - May 2023
	Ostrich Math Creation Project, Scale AI	
	<ul style="list-style-type: none">• Reviewed example questions for the AMC12 Mathematics contest• Checked for mathematical soundness, accuracy, novelty, LaTeX formatting• Rewrote when necessary and provided feedback	
	Directed Reading Program Mentor	March - June 2022 (Spring quarter)
	U.C. Santa Cruz, Mathematics Department, Santa Cruz, CA	
	<ul style="list-style-type: none">• Paired with an undergraduate student mentee, with whom I developed a suitable reading/research plan that was accessible and relevant to their interests• Met weekly to gauge progress, provide readings, structure, perspective, feedback, and mentorship• Assisted the mentee in developing a talk about the readings given at the end of the quarter	
	Teaching Assistant	November 2019 - June 2022
	U.C. Santa Cruz, Mathematics Department, Santa Cruz, CA	
	<ul style="list-style-type: none">• Classes (by quarter, F := Fall, W := Winter, Sp := Spring, Su := Summer):<ul style="list-style-type: none">– MATH 19A (Calculus for STEM) F 20, W 21– MATH 19B (Calculus for STEM) Sp 22, F 19, F 21– MATH 23A (Vector Calculus) W 22, W 20, Sp 20, Sp 21– MATH 24 (Ordinary Differential Equations) Su 21– CMMU 30 (Numbers and Social Justice) Su 20• Held section 1-3 times a week, and weekly office hours• Graded homework, quizzes, and exams	
	Lead Teaching Assistant	November 2020 - Mar 2022
	U.C. Santa Cruz, Mathematics Department, Santa Cruz, CA	
	<ul style="list-style-type: none">• Classes: MATH 19A, 19B, 23A, various quarters• Managed 3-5 other TA’s: organize a weekly schedule of sections and office hours; divide grading, reviews and other duties; communicate between TA’s, professors, and students• Tech support for other TA’s and students (Zoom, Canvas, Google suite, online e-book/HW portal (MacMillan Launchpad, Achieve))• Organized, moderated, and facilitated participation in online discussion forums for students (Piazza, Discord Slack, Zulip, etc.)	
	Tutor	November 2019 - March 2020
	Prison Inmate Education Project, Santa Cruz County Jail, Santa Cruz, CA	

- Tutored inmates at the Santa Cruz County Jail: implemented diagnostics to determine level of education, collaborated with students to set goals and a plan of study, and taught Pre-Algebra and Algebra

Contractor

September - October 2021

Code and Cursor, Oakland, CA

- Collaborated on adapting a version of the “Boids” program (a bird flocking simulator) in the Processing language, for use in an art installation at Chicago O’Hare Airport
- Worked as a team to design, build, and troubleshoot a polished, working program, using math/physics knowledge (vectors, mechanics, etc.) to develop a life-like bird flocking motion
- Wrangled data, balancing aesthetics without losing statistical meaning, and to output intelligible information (positions, sizes, units) for use in assembling the physical exhibit

Recreation Leader I

June - August 2019

Oakland Parks, Recreation & Youth Development, Dimond Park, Oakland, CA

- With other Rec Leaders and Aides, lead groups of 15-20 kids (ages 5-10) through summer camp activities such as: outdoor and indoor games, hikes, educational activities, arts and crafts, visiting guests, field trips, etc.
- Set up, served, and cleaned up breakfast, lunch, supervised free-play, and facilitated use of park equipment and facilities

After-School Education & Safety (ASES) Tutor

August - December 2018

Oakland Charter Academy, Oakland, CA

- Led After School tutoring classes and Study Hall daily
- Organized and taught an enrichment Chess & Puzzles class
- Substitute ASES Supervisor (administrate ASES program: transition students and teachers from end-of-school to snack-time to ASES program, monitor campus to make sure all after-school programs ran smoothly)

Paraprofessional Tutor

May 2016 - August 2018

Oakland Charter Academy, Oakland, CA

- Tutored small groups, both in-class and out of class, during the school day
- Collected student data to inform targeted academic support and intervention
- Substituted for teachers of all grade levels (6th - 8th grade) and subjects
- Led after-school tutoring and enrichment classes daily
- Helped set up and organize community events such as Posada, Harvest Festival, Winter/Spring Formals, and 8th grade graduation

Engineering Tech

September 2014 - May 2016

Contra Costa County Public Works Dept, Martinez, CA

- Used GIS (mapping software) to screen industrial sites for pollutants
- Created and maintained spreadsheets for street sweeping maps, schedules, and collected trash level data
- Communicated with public and other departments by email and phone regarding municipal operations and illegal dumping complaints
- Set up and conducted public outreach at community and school events for education of clean water and watershed programs

**TALKS,
ORGANIZING**

“What (the Heck) is a Higher Category?”

May 2, 2022

UC Santa Cruz, Mathematics Department Graduate Colloquium

“What (the Heck) is a Spectrum?” February 14, 2022
UC Santa Cruz, Mathematics Department Graduate Colloquium

Community Category Theory Seminar Winter - Spring 2022
UC Santa Cruz

- Co-organized (with 2 other grad students) this unofficial learning seminar for graduate and undergraduate students.
- In Winter 2022, gave lectures and supervised weekly problem sessions.
- In Spring 2022, a weekly problem session.

CONFERENCES, SEMINARS, SCHOOLS, WORKSHOPS... **Faculty Diversity Internship Program Intern** January - May 2023
West Valley-Mission Community College District, San Jose, CA

Summer School on Chromatic Homotopy Theory and Higher (Infinity-Categorical) Algebra Aug 15-26, 2022
(online) <https://iwoat.github.io/>

PCMI Graduate Summer School July 12-23, 2021
(online) IAS Park City Mathematics Institute

- Week 1 : “An Introduction to Motivic Homotopy and its Applications”
- Week 2 : “Illustrating Mathematics”

¡Viva Talbot! 2021 June 1-6, 2021
(online) MIT

Cornell Topology Festival May 20-21, 2021
(online) Cornell University

Graduate Student Topology & Geometry Conference April 9-11, 2021
(online) Indiana University - Bloomington

Dualities in Topology and Algebra February 1-13, 2021
(online) International Centre for Theoretical Sciences

Inclusive Teaching Workshop September 2019
Center for Innovation in Teaching and Learning (CITL), U.C. Santa Cruz

AMPS Summit Summer 2016 - 2017 - 2018
Amethod Public Schools, Richmond, CA