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| EDUCATION | Master of Arts, Mathematics <i>University of California–Santa Cruz, Santa Cruz, CA</i> Thesis: “Stable ∞ -categories and their Homotopy Categories” | June 2022 |
| | Bachelor of Sciences, Physics & Mathematics <i>University of Iowa, Iowa City, IA</i> | May 2009 |
| WORK EXPERIENCE | AI Trainer and Reviewer <i>Remotasks (Scale AI)</i> <ul style="list-style-type: none">• “Advanced Mathematics Project” (Feb 2024 - present):<ul style="list-style-type: none">– Formulate creative and original prompts about topics of undergraduate to graduate level Mathematics to train an AI education bot– Edit AI-generated responses for accuracy, clarity, typesetting• “K-12 STEM Education Project” (May 2023 - Feb 2024):<ul style="list-style-type: none">– Interface with AI chatbot based on various guidance (e.g. explain a concept, solve this problem, ...) relating to various concepts from K-12 courses (Mathematics, Physics, Chemistry)– Edit chatbot answers to be factual, thorough, and grammatically correct, as well as following a style guide– Review submissions of exchanges with the bot and judged based on adherence to guidance, quality of responses. Edit when necessary– LaTeX and Markup typesetting and editing according to customer requirements• “AMC12 Math Creation Project” (April - May 2023):<ul style="list-style-type: none">– Reviewed example AI-generated questions for the AMC12 Mathematics contest– Checked for mathematical soundness, accuracy, novelty, LaTeX formatting– Rewrote when necessary and provided feedback | April 2023 - present |
| | Faculty Diversity Internship Program <i>West Valley - Mission Community College District, San Jose, CA</i> <ul style="list-style-type: none">• Paired with a Mathematics faculty mentor, observed his courses over the course of Spring semester, and met weekly to discuss various aspects of teaching Math at a community college• Attended professional development sessions on various topics related to teaching at a community college (e.g. DEIAB, planning a course, curriculum, assignments, grading, culture-building, student engagement, technological resources, the hiring process, etc.) | January - May 2023 |
| | Lead Teaching Assistant <i>U.C. Santa Cruz, Mathematics Department, Santa Cruz, CA</i> <ul style="list-style-type: none">• Classes: MATH 19A, 19B, 23A, various quarters | November 2020 - Mar 2022 |

- 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.)

Teaching Assistant

November 2019 - June 2022

U.C. Santa Cruz, Mathematics Department, Santa Cruz, CA

- Classes (by quarter, F := Fall, W := Winter, Sp := Spring, Su := Summer):
 - 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

Math Consultant

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.
- Developed and led educational activities involving Math and Reading instruction that were also fun, engaging summer camp activities
- 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

UNPAID EXPERIENCE

Directed Reading Program Mentor

March - June 2022

*U.C. Santa Cruz, Mathematics Department
Santa Cruz, CA*

- Paired with an undergraduate student, 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 student in developing a talk about the readings given at the end of the quarter

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

TRAINING & AWARDS

Outstanding T.A. Award

May 2022

U.C. Santa Cruz, Mathematics Department

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

- Yearly summer meeting in Richmond, CA, of staff from all campuses of Amethod Public Schools
- Attended workshops for inclusive teaching practices, new technologies and resources, networking with staff from other campuses, etc.
- Collaborated with staff in the same subject/grade level on lesson planning for the upcoming school year