#### Sean Riedel

### 303-243-2252 | sriedel@ucsc.edu

### Summary

I am a motivated, excited, and extremely hardworking graduate student eager to learn as much as I possibly can about the universe. I have experience conducting research in pure mathematics as well as applied and computational physics. I also have substantial teaching experience from planning and facilitating weekly group tutoring sessions for undergraduate classes in math and physics.

#### Education

# B.S. in Mathematics, University of California, Santa Cruz

June 2021

- Minor in Physics
- GPA 3.9
- Member of the NCAA Cross Country and Track teams

### Experience

# Summer Intern, Los Alamos National Laboratory X Computational Summer 2021 Physics Division

- Added Rutherford scattering Monte Carlo method to a large charged particle transport (CPT) code library
- Performed a verification and validation study of the CPT capabilities of two codes at the laboratory

### Math and Physics Tutor, UCSC Learning Support Services

2019 - 2021

- Facilitated 3 times weekly small group tutoring sessions focused on engagement of students
- Prepared weekly planning sheets with detailed activities
- Courses tutored for include: Waves and Optics, Real Analysis, Abstract Algebra, Linear Algebra, Vector Calculus and Discrete Mathematics.

# Undergraduate Researcher, Polymath Research Experience for Undergraduates

Summer 2020

- Personally responsible for developing a visualization tool for representing convex geometries using circles in the plane
- Worked on a paper with cohort of 12 students and our mentor Professor Kira Adaricheva

# Program Mentor, UCSC Learning Support Services

2019

- Responsible for facilitating trainings and mentoring other tutors.
- Conducted quarterly performance reviews of other tutors.

# **ATLAS electronics testing assistant**, Santa Cruz Institute for Particle Physics

2018

 Collected data used to analyze the effects of annealing on silicon strip particle detectors

## Honors

## Highest GPA of all UCSC male student athletes

2019

• Awarded for a GPA of 3.98 at the time

### CoSIDA Academic All-District

2020

• Men's Track & Field/Cross Country

### Skills

Programming Languages: C++, Matlab, Python, Fortran LATEX: Proficient in mathematical and scientific document typesetting Spanish: I am able to read, write, and speak Spanish at a basic level Mountain Unicycling: I enjoy riding my unicycle in places most people would be scared to hike