

Trey Allen

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<https://taall3n.github.io/>

Education:

Willamette University

08/2021 to present

- GPA: 3.93 (current unweighted)
- Expected Graduation: 05/2025
- Declared B.S. in computer science, B.S. in physics

Relevant Coursework

08/2021 to present

Mathematics

- Foundations of Advanced Mathematics
- Linear Algebra

Physics

- Modern Physics
- Mechanics
- Nonlinear Dynamics and Chaos
- Quantum Mechanics
- Advanced Techniques in Theoretical Physics (ATEP)

Computer Science

- Data Structures
- Software Development
- Analysis of Algorithms

Other

- Data in the Cosmos

Activities and Relevant Work Experience:

Willamette University Physics Department:

08/2022-present

Tutor and Teaching Assistant

- Helped other students as both a tutor and Lab Teaching Assistant in Fall 2022 semester, as a Lab Teaching Assistant in Spring 2023 semester, and as an Embedded Tutor in an Intro Physics course in Fall 2023

Willamette University Science Collaborative Research Project (SCRIP)

Research

05/2022 to 07/2022

- Worked on summer cosmology research project about galactic bulk flow with Professor Richard Watkins at Willamette University
- Results presented strong challenge to the Standard Cosmological Model, a validated simulation model describing how the present universe formed
- Subsequent research paper titled “Analyzing the large-scale bulk flow using cosmicflows4: increasing tension with the standard cosmological model” in the “Monthly Notices of the Royal Astronomical Society” scientific journal
 - Shortened link to paper: <https://tinyurl.com/3y62bnbu>

Tucson Racquet Club Summer Camp

Coach

05/2023-08/2023

- Worked in both the “tennis camp” and “all-sports camp” to help kids of ages 7-16 learn tennis and a variety of other sports
- Also helped coach the “night camp” and helped supervise kids in “after-camp”

Tucson JCC Tennis Program

Coach

11/2020 to 08/2021

- Helped teach young kids aged 7-13 tennis in multiple weekly tennis classes, also taught private lessons
- Also helped assist in winter break clinics and over summer break

Camp Westwind Oregon Outdoor School

Camp Counselor

10/2019

- Served as student counselor and cabin head to a group of boys for four days; would have returned 05/2020 and 10/2020 if not for COVID-19 pandemic
- Led and co-led students on multi-hour trips in the forest, teaching them about it as they went

Coach for Dusenberry River Library Chess Program

Volunteer

08/2017 to 03/2020

- Once per week, helped oversee middle school students in after-school program
- Introduced and coached students from beginner often to intermediate skill levels as they continued to return weekly for years

Extracurricular Activities:

Willamette University Men's Tennis Team

Member

08/2021-present

- Competed for Willamette University Men's Tennis Varsity Team against other Division III opponents