

Charlie Tolley

Astrophysics

Education

2021-present **Bachelor of Arts**, *University of California, Berkeley*, Berkeley, CA, GPA - 3.7
Astrophysics

Research Interests

I have interest in mapping the universe and finding, classifying and simulating interactions between different types of astronomical objects.

Research Experience

PSF Outlier Spectra Analysis at DESI

Secondary Target Analysis I am currently working at Lawrence Berkeley Lab with the DESI cosmology group to identify and analyze astronomical objects in the secondary target set that lie off of the main sequence.

Python DeCal Final Project

Planetary Retrograde Simulation This was a group project in which we animated the paths of planets through the sky from the perspective of someone on Earth.

High School Research Project

Light Pollution and Christmas Lights I designed and conducted an experience to measure and analyze the effects of Christmas lights on the light pollution of Winters, CA. I wrote a literature review, method, discussion and conclusion for the project, including relevant graphs.

Research Talks

Python DeCal I gave a report alongside my group mates on the process, implementation and trials while coding our simulation.

AP Capstone I gave multiple practice presentations for my high school research described in the above section, although because of the pandemic I was not required to submit a presentation video in accordance with the emergency measures taken by CollegeBoard.

Skills

Softwares Python, Java

Soft Skills Critical Thinking, Thoughtful Critique, Cooperating in a Team Environment

Languages: English - First Language, Spanish - Second Language