

490 Sea Horse Drive,
La Selva Beach, 95076
(831)-251-5056
jbrobine@ucsd.edu

Github: Yesse42

Jesse Robinett

Education

University of California, San Diego – *B.S. in Oceanic and Atmospheric Sciences and Applied Mathematics*

Fall 2019–Present (Expected June 2023). Current GPA: 3.987

Research Experience

Research Assistant

Fall 2019–Winter 2020: Under the direction Dr. Amato Evan.

Desert-proofed instrumentation to measure dust storms in the Salton Sink, and designed a static webpage which allowed for quick diagnosis of dust storms by aggregating webcams, numerical weather predictions, and observations into a single page.

Summer–Fall 2020 and Summer 2021–Present: Working with Dr. Rachel Clemesha.

Aggregated ground-based observations of California cloudiness from multiple sources into a single dataset, which I then validated against the lab's older dataset. I also used principal component analysis to analyze relationships and trends in low cloudiness, and am now evaluating possible causes for observed decreasing trends.

Paid Research Assistant

Winter 2021–Summer 2021: Working for Dr. Rachel Clemesha

I evaluated various GOES-17 cloudiness products against airport observations and the lab's own cloudiness datasets to determine how best to use GOES-17 data for low cloud detection.

Relevant Skills

- Python: Manipulation of geospatial datasets in NetCDF, Parquet, and CSV formats via Pandas and XArray, plotting via Matplotlib and Cartopy.
- Julia: My general purpose programming language. Data analysis with DataFrames.jl, plotting with CairoMakie.jl. NetCDF is supported via NCDatasets.jl. Can present a Python, C, or R interface for integration purposes.
- Can work remotely on a Linux server.

Scholarships

UCSD Regents Scholarship

Ernest F. Hollings Undergraduate Scholarship

Relevant Coursework

Geophysical Fluid Dynamics, Atmospheric Dynamics and Thermodynamics, Mathematical Probability and Statistics, Physical Oceanography, Numerical Linear Algebra, Real Analysis