Ethan Murray

exm5333@miami.edu | [LinkedIn Profile](#) | [Personal Website](#)

Technical and Interpersonal Skills

- Python, Matlab, GIS, Github, and Linux
- Data analysis
- Weather models and observations
- Data visualization
- Effective communication
- Collaboration

Professional Experience

Investigating Convection in the Tropical Atlantic   August 2025 – Present
University of Miami / NOAA AOML
- Investigated the foundational role of moisture in driving tropical convection and severe storms through analysis of aircraft data, reanalysis products, and models.

Understanding Tropical Cyclone Internal Structures   August 2021 – July 2025
Department of Atmospheric and Oceanic Sciences, Boulder, CO
- Directed multiple projects studying tropical cyclone internal structures using observations and models. Demonstrated proficiency in statistical analysis, software management, and collaboration.

Comparing Tropical Cyclone Models and Observations   June - August 2024
Naval Research Laboratory, Monterey, CA
- Collaborated with Navy scientists as an NREIP summer intern to improve COAMPS-TC (their tropical cyclone forecasting model) through comparisons with observations, resulting in a journal article.

Simulation of Ocean Wave Breaking   June – August 2021
Scripps Institution of Oceanography, La Jolla, CA
- Simulated idealized ocean waves using Matlab and Fortran, connecting wave packet bandwidth to wave breaking. This project culminated in the publication of a second author journal article.

Field Campaign Experience

MAGPIE Field Campaign Research Scientist, Bridgetown, Barbados   August – September 2023
- Collaborated with NOAA, Navy, and University scientists to observe the tropical atmospheric boundary layer and its aerosol gradients. Demonstrated problem solving skills while collecting radiosonde, atmospheric lidar, and ship-based measurements in challenging environments.

TORUS Field Campaign Research Scientist, Topeka, KS   May – June 2022
- Flew on NOAA's P-3 aircraft sampling the atmosphere around thunderstorms, supercells, and tornadoes. Participated in 12 research flights, logging 70 flight hours. Gained operational experience as a flight scientist by supervising the atmospheric lidar and directing P-3 flight legs.

Outreach and Leadership

Elementary School Science Outreach 2024–Present   **Varsity Men's Rowing** 2018 - 2021

Education

University of Colorado, Boulder
PhD, Department of Atmospheric and Oceanic Sciences   July 2025
MS, Department of Atmospheric and Oceanic Sciences   December 2023
Vassar College
BA, Physics Major, Computer Science Minor   June 2021