

EDUCATION

B.S. in Atmospheric Sciences and B.S. in Statistics
University of Illinois at Urbana-Champaign (UIUC)

GPA: 3.87
May 2024

EXPERIENCE

Paleoclimate Researcher

May 2022 - Present

- Currently working on research in the Climate Dynamics and Data Science group at UIUC, with the goal of investigating the relationship between the stable oxygen isotopic composition of sea water and sea surface salinity for the purposes of improving the predictive skill of isotopic coral data as a proxy for past climate variability
- Working with virtual supercomputers to access and handle large datasets generated by global climate models
- Reduced large datasets, performed statistical methods, and generated many graphs using Python programs

Undergraduate Research Apprenticeship Program (URAP)

January 2021 – May 2021

- Participated in a research project with a PhD student mentor, studying phosphorus pollution in Lake Erie
- Gathered and handled large amounts of data using government databases, Microsoft Excel, MATLAB, and R, applied information theory to perform statistical analysis between multiple variables such as streamflow and phosphorus loads

Radar Data Analyst

October 2020 – January 2021

- Participated in a research project within the Atmospheric Sciences department, gathering and analyzing data to assess the correlation between pre-tornadic mesocyclone characteristics and tornado-intensity
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PRESENTATIONS

Undergraduate Research Apprenticeship Program (URAP)

May 2021

- Constructed a poster presentation and a 5-minute video for the Undergraduate Research Symposium, summarizing the context, key questions, methods, results, and conclusions drawn from my project
- Answered project related questions from experts in the field

Midwest Student Conference on Atmospheric Research

October 2022

- Will be presenting intermediate results from my current paleoclimate research

American Geophysical Union Fall Meeting 2022

December 2022

- Will be presenting final results from my current paleoclimate research

American Meteorological Society 21st Annual Student Conference

January 2023

- Will be presenting final results from my current paleoclimate research
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RELATED COURSEWORK

General Physical Meteorology, Synoptic-Dynamic Weather Analysis, Computing and Data Analysis, Radar Remote Sensing, Radiative Transfer-Remote Sensing, Synoptic Weather Forecasting, Atmospheric Thermodynamics, Atmospheric Dynamics I, Risk Analysis in Earth Science, Statistical Analysis, Statistics and Probability I, Statistics and Probability II, Statistical Modeling I, Statistical Modeling II

SKILLS & ABILITIES

Leadership & Community

- Current ISTORM President, former Boy Scouts of America Senior Patrol Leader and Science Olympiad Student Leader
- 200+ hours of volunteering at an AMITA Health hospital, 100+ hours of volunteering through Boy Scouts of America

Academic & Achievements

- Dean's list, AP Scholar with Distinction, Seal of Biliteracy in Spanish, Eagle Scout (Boy Scouts of America)

Software & Productivity Skills

- Programming experience with Python, R, MATLAB, SQL, and Unix
 - Knowledge of Microsoft Excel, PowerPoint, and Word
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ORGANIZATIONS

- Illinois Student Organization of Meteorology (ISTORM)
- American Meteorological Society (AMS)
- American Geophysical Union (AGU)

August 2020 - Present
December 2021 - Present
August 2022 - Present