Rachel Emery

Norman, OK| rachel.r.emery-1@ou.edu | (217) 381-3622

Education

Bachelor of Science, Meteorology, Minor in GIS   Expected May 2025

Research Experience

Undergraduate Research Assistant, University of Oklahoma   February 2023-Present
Advisor: Dr. Jens Redemann
- Project title: Characterization of CCN Concentration and Activity for Different Aerosol Types.
- Analyze the activation of different aerosol types into CCN using in-situ data from NASA's ORACLES, CAMP²Ex, and DISCOVER-AQ campaigns.

Academic Honors

- OU Award of Excellence   2021
- OU Honors College   2021-Present
- President's Honor Roll   2021-Present
- Office of Undergraduate Research and Creative Activity (UReCA) Fellowship   2023

Community Service and Extracurricular Involvements

Oklahoma Weather Lab Director of Operations, OU   May 2023-Present
- Appointed ten OWL shift leaders and implemented a monthly survey for shift leaders to ensure thorough communication with the board.
- Lead forecast discussions for Oklahoma and record a forecast for Key West, Florida, during Sunday night shift.

Oklahoma Weather Lab Director of Training, OU   December 2022 – May 2023
- Trained OWL shift leaders and attended weekly, two hour shifts to discuss weather phenomena and collaborate with peers to write forecast discussions.

WDTD Severe Weather Training, OU   March 2023
- Issued severe weather watches and warnings in a simulated, high-pressure environment using AWIPS.

The Big Event Operations Staff, OU   November 2022 – April 2023
- Contacted and evaluated jobsites for The Big Event in April 2023.
- Led presentations to increase volunteerism within the School of Meteorology.

National Weather Service Job Shadow, Lincoln, IL   August 2022
- Observed shift duties of Warning Coordination Meteorologist Ed Shimon, aided in the launch of a balloon sounding, and created two river forecast products for Central Illinois.

OU SCAN Member, OU   August 2021-Present
- Volunteered at The Big Event in April 2022 and The Little Event in October 2022.

Publications

"The Uncanny Freud", OU Brainstorm vol. XIV   November 2022

Presentations

- *Characterization of CCN Concentration and Activity for Different Aerosol Types*, poster presentation at the 2023 UReCA Showcase, Norman OK

Technical Capabilities

- Programming experience in Python and MATLAB.
- Geospatial analysis experience in ArcGIS Pro.
- Statistical analysis experience using SPSS.