MICHELLE R. SPENCER

CONTACT

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Contact Information

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EDUCATION

2022-Present University of Oklahoma, Ph.D., Meteorology

2020-2021 University of Wisconsin – Milwaukee, M.S., Atmospheric Sciences

2019 Metropolitan State University of Denver, B.S., Meteorology

Minor: Mathematics

PROFESSIONAL EXPERIENCE

2022-Present University of Oklahoma – School of Meteorology

Graduate Research Assistant, Advisors: Dr. Petra Klein (OU-SoM) and Dr.

Elizabeth Smith (NSSL)

I am currently working to investigate the role of land/sea breeze interaction with aerosols in connection with convection initiation in the Houston area as a part of

the TRACER project.

2020-2021 University of Wisconsin – Milwaukee – Atmospheric Sciences

Graduate Research Assistant, Advisor: Dr. Clark Evans

My research focused on quantifying the influence of sea-surface temperature uncertainty on cool-season severe weather events in conjunction with the

VORTEX-SE project.

2021 Atlantic Oceanographic and Meteorological Laboratory

NOAA Lapenta Intern

I conducted a research project investigating the effects of tropical cyclones on upper ocean characteristics in the northern Atlantic Ocean. Continuation of this

work is still being conducted.

2019 National Weather Center

Research Experience for Undergraduates Intern

I completed a research project concerning the heterogenous structure of the nocturnal low-level jet and its possible influence on convection initiation.

Continuation of this work is still being conducted.

HONORS AND AWARDS

2018-2019 Rottman Memorial Scholarship

Metropolitan State University of Denver

ADDITIONAL EXPERIENCE

2019-Present Student Member

Symposium on Measurements Observations and Instrumentation (SMOI)

Committee of the American Meteorological Society

2019 Learning Assistant

I worked as an assistant to classes (Weather Observing Systems, Climatology, and Atmospheric Dynamics), which included tutoring students, assisting teachers with lecture, and assisting students with labs.

2018-2019 Vice President

Student Chapter of the American Meteorological Society at Metropolitan

State University of Denver

PRESENTATIONS EXPERIENCE

2022 Annual Conference of the American Meteorological Society

"The Influence of Mesoscale Sea-Surface Temperature Uncertainty on Short-Range Forecasts of Cold-Season Southeast US Severe Weather

Events"

2021 Annual American Geophysical Union Conference

"Direct Measurements of the Upper Ocean Response to Tropical Cyclones

in the Tropical North Atlantic"

2021 Annual Conference of the American Meteorological Society

"The Influence of Mesoscale Sea-Surface Temperature Uncertainty on Short-Range Forecasts of Cold-Season Southeast United States Severe

Weather Events"

2020 Annual Conference of the American Meteorological Society

"Exploring Great Plains Nocturnal Low-Level Jet Heterogeneity and

Connections to Convection Initiation"

2019 Research Experience for Undergraduates – National Weather

Center

"Exploring Great Plains Nocturnal Low-Level Jet Heterogeneity and

Connections to Convection Initiation"

2019 Annual Conference of the American Meteorological Society –

Student Conference Poster Session

"Comparison of GFS and NAM Weather Numerical Prediction Models in

Predicting Tornado Outbreaks"

TECHNICAL SKILLS

IDV (proficient), Kaleidagraph (proficient), Python (working knowledge), MATLAB (working knowledge), Weather Research and Forecast (WRF) Model (working knowledge), LINUX (working knowledge), HPC platforms (basic knowledge), LaTeX (basic knowledge)