

Rachael Nichole Isphording

RESEARCH EXPERIENCE

Oak Ridge National Laboratory

Intern (Advisor: Dale Kaiser)

Oak Ridge, TN

January 2015-Present

- Research and evaluation of applicable extreme events publications and data for the development of a multi-agency extreme weather and climate events Web portal.
- Perform standardized metadata entry for pertinent scientific information.
- Collaborate with senior scientists on Web portal design and development.

Bethune-Cookman University

Research Assistant (Advisor: Dr. Hyun Jung Cho)

Daytona Beach, FL

September 2014-December 2014

- Attended graduate-level remote sensing courses, laboratory training, and in-field data collection training using a Jaz Spectrometer and a Trimble GeoXM GPS.
- Assisted with the development of an algorithm to correct for underwater backscattering of light through controlled lab experiments and mathematical manipulation.
- Applied algorithm to the remote sensing of underwater vegetation.

Embry-Riddle Aeronautical University

Independent Research (Advisor: Dr. Richard Snow)

Daytona Beach, FL

January 2014-October 2014

- Completed critique of case studies on GIS applications of determining and modeling potential wind farm locations.
- Isphording, R., R. Snow, and M. Snow (2015). Mitigating the effects of climate change with wind energy and GIS. *British Journal of Applied Science and Technology*. 6(2), 105-113. doi:10.9734/BJAST/2015/14253

Embry-Riddle Aeronautical University

Independent Research (Advisor: Dr. Christopher Herbster)

Daytona Beach, FL

January 2014-September 2014

- Performed regional and seasonal statistical variability analyses of simulated wind farms using the NREL Eastern U.S. Wind Dataset.
- Poster presented at the AMS 2015 Student Conference.

NASA DEVELOP National Program

Intern

Mobile, AL

January 2013-August 2013

- Participated in a small, student-led research team that addressed environmental issues in the community and demonstrated the utility of NASA Earth Observation Systems for the project partners' decision making process.
- Assessed the impacts of modeled urban growth on water quality in the local drinking water reservoir.
- Evaluated the impacts of wildfires by analyzing burned biomass and contributions of aerosols to ambient air quality.
- Presented findings to community leaders and NASA administration.

Embry-Riddle Aeronautical University

Research Assistant (Advisors: Dr. C. Herbster and Professor D. Schaum)

Daytona Beach, FL

June 2012-August 2012

- Assisted with the research and publication of a hydrologic prediction tool for road construction applications.
- Performed controlled tests to observe the downward water percolation rates of controlled volumes of water, calibrated to various rainfall depths.

EDUCATION

Embry-Riddle Aeronautical University

Bachelor of Science in Applied Meteorology

Minor: Applied Mathematics

Daytona Beach, FL

GPA: 3.62/4.0

Honors Program, cum laude

LEADERSHIP POSITIONS

NASA DEVELOP National Program

Campus Ambassador

Daytona Beach, FL

August 2013-May 2014

- Liaised between NASA administration and university department leaders to coordinate recruiting events.
- Showcased NASA DEVELOP at career exploration events.

Embry-Riddle Aeronautical University

Resident Advisor

Daytona Beach, FL

August 2011-December 2014

- Provided crisis intervention, conflict mediation, counseling, tutoring, and advisement of a hall of 40 residents.
- Developed community and academic environment through the organization and execution of social, educational, and academic programs on a biweekly basis.

American Meteorological Society

Chapter President

Daytona Beach, FL

May 2012-December 2012

- Restructured the goals and objectives of the Embry-Riddle chapter.
- Planned and executed informative seminars, social events, and educational field trips.

Student Government Association

Representative of Housing and Residence Life

Daytona Beach, FL

Secretary of the Student Representative Board

September 2011-May 2012

- Recorded minutes and planned yearly leadership development outings.
- Voiced students' needs and suggestions to Housing and Residence Life administration, and executed large projects on campus.

OTHER WORK EXPERIENCE

Embry-Riddle Aeronautical University

Tutor, Weather Lab

Daytona Beach, FL

January 2014-December 2014

- Tutored peers in Meteorology, Mathematics, and Physics course work.
- Participated in campus outreach and public relations events.
- Resource protection over \$100,000 worth of equipment.

Fairhope Volunteer Fire Department

Volunteer Firefighter

Fairhope, AL

June 2009-August 2010

- Responded to emergency situations in the community.
- Planned, organized, and executed fundraisers.

AWARDS

- 2014 Bagby Award (ERAU Outstanding Meteorology Senior) - \$500
- Embry-Riddle Senior Eagle Scholarship - \$500
- ERAU Academic Scholarship - \$32,000
- AAR Ira A. Eichner Scholarship - \$3,075
- Dean's List (3 semesters)
- Honor Roll (3 semesters)

COMPUTER SKILLS

ArcMap, ENVI 5, ENVI Classic, Spectral Suite, MATLAB, C-Programming, Java, HTML/CSS, NMAP, GARP, Microsoft Word, Microsoft PowerPoint, Microsoft Excel, Adobe Premiere

PROFESSIONAL INVOLVEMENT

American Meteorological Society

- Student Assistant to the 2013 and 2014 Annual Conference
- Student Member to the Committee on Environmental Security (January 2015-Present)

Chi Epsilon Pi (Meteorology Honor Society)

Member (2011-2014)