

Erik Tyler Smith

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Research Interests: Winter climate variability, seasonal forecasting, climate modeling, climate change and national security, biometeorology, climate change communication

Education

<u>Kent State University</u> , Kent, OH Ph.D. in Geography GPA: 3.97	08/2017 – 05/2021
<u>Kent State University</u> , Kent, OH Masters in Geography GPA: 4.0	08/2015 – 08/2017
<u>Western Kentucky University</u> , Bowling Green, KY Major: Meteorology Major GPA: 3.72 Cumulative GPA: 3.4 Minor: Geographical Information Systems	08/2012 – 05/2015

Employment

Research Assistant, Kent State University

- Development of a Great Lakes water clarity index to be used as a climate indicator
Funded by NASA
- Developing extreme event climate change indicators related to human thermal comfort
Funded by the National Oceanic and Atmospheric Administration (NOAA)
- Using a synoptic climatological framework to assess predictability of anomalous coastal sea levels in NOAA high priority areas
Funded by NOAA

June 2016 – present

Teaching Assistant, Kent State University

- Physical geography lab instructor of two labs

August 2015 - May 2016

Forecaster Yellowberri Weather & Consulting Company, Bowling Green, KY

- Issue forecasts for the Warren County and surrounding areas, maintain the blog, give schools talks, assist with NWS storm surveys, and provide live updates during extreme weather events

August 2014 – May 2015

Climatologist, Midwestern Regional Climate Center, Champaign, IL

- Summer internship: Managed the Service Climatologist office and assisted in the Accumulated Winter Season Severity Index project (AWSSI) by quality controlling the data

May 2014 - August 2014

Scholarships/Awards

Kent State University Research Award

- \$2,000, Awarded based on project proposal

April 2019

Beck Publication Award

- \$500, Awarded to graduate student in the Department of Geography with the best publication

April 2019

Elected as the Information Services Chair in the Graduate Student Senate, Kent State University (paid position)

- Maintain all items concerning the website (bylaws, research and travel awards, minutes, committee member's information) and help facilitate senator meetings

June 2016 – May 2017

Graduate Student Research Symposium Award, Kent State University

- \$150, Most outstanding presentation in Earth Sciences

May 2017

Most Outstanding Senior Meteorology Major, Western Kentucky University

May 2015

James & Avo Taylor Scholarship, Western Kentucky University

- \$12,000 - Awarded to student with high Academic achievement in College of Science and Engineering

August 2014

Ambassador of the College of Science and Engineering, Western Kentucky University

August 2014 – May 2015

Publications

Accepted

Smith, Erik, and Sheridan, S. C. (2018). "The Characteristics of Extreme Cold Events and Cold Air Outbreaks in the Eastern United States." *International Journal of Climatology*.

Smith, Erik, and Sheridan, S. C. (2018). "The Influence of Atmospheric Circulation Patterns on Cold Air Outbreaks in the Eastern United States." *International Journal of Climatology*.

Smith, Erik, and Sheridan, S. C. (2019). "The Influence of Extreme Cold Events on Mortality in the United State." *Science of the Total Environment*.

Sheridan, S. C., Lee, C. C., Adams, R., Smith, E. T., Pirhalla, D., & Ransibrahmanakul, V. (2019). "Temporal modeling of anomalous coastal sea-level values using synoptic climatological patterns." *Journal of Geophysical Research: Oceans*.

Adams, R., Lee, C. C., Smith, E. T., & Sheridan, S. C. (2020). "The relationship between atmospheric circulation patterns and extreme temperature events in North America." *International Journal of Climatology*.

Submitted for Review

Smith, Erik, and Cromley, G. (2020). "The Role of Weather on Airborne Parachute Operations during the French Indochina War." Transactions of the Institute of British Geographers.

Smith, Erik, Obarein, O., Sheridan, S. C., & Lee, C. C. (2020). "A new method to assess trends in atmospheric circulation patterns across North America." Climatic Change.

Smith, Erik, and Sheridan, S. C. (2020). "Where do Cold Air Outbreaks occur and how have they changed?" Geophysical Research Letters.

Smith, Erik, Lee, C. C., Pirhalla, D., Ransibrahmanakul, V. Chuanmin, H., Barnes, B. B., & Sheridan, S. C. (2019). "A synoptic climatological analysis of the atmospheric drivers of water clarity variability in the Great Lakes." Journal of Applied Meteorology and Climatology.

Conference Presentations

Where do Cold Air Outbreaks occur and how have they changed?

- Presented poster at the American Geophysical Union (AGU) in San Francisco, California
December 2019
- Presented at NOAA's 44th Climate Diagnostics and Prediction Workshop in Durham, North Carolina
October 2019

The Influence of Extreme Temperature Events on Mortality in the Eastern United States

- Presented at the American Association of Geographers Conference (AAG) in New Orleans, Louisiana
April 2018
- Presented at the Kent State University Graduate Research Symposium
April 2017

The Characteristics of Cold Air Outbreaks in the Eastern United States and the Influence of Atmospheric Teleconnections

- Presented Poster at the American Geophysical Union (AGU) in New Orleans, Louisiana
December 2018
- Presented at the American Association of Geographers Conference (AAG) in Boston, Massachusetts
April 2017
- Presented at the Applied Geography Conference in Louisville, Kentucky
October 2016
- Presented at Kent State University Graduate Research Symposium
April 2016

Spatial Analysis of the Correlation between Teleconnections and the Accumulated Winter Season Severity Index

- Presented at the East Lakes American Association of Geographers conference at Kent State University
October 2015

Remote Sensing Analysis of a Possible Tornado in Brewster, Nebraska
- Presented at Western Kentucky University Research Conference

March 2014

The Difference Between Storm Chasing and Storm Spotting
- Presented at Severe Weather Awareness Day in Nashville

March 2014

Skills and Expertise

Research

Programming

- MATLAB, Python, R, ArcGIS for Desktop, ArcGIS ModelBuilder, and ArcGIS Online, HTML, CSS, Drupal, IDV, and Bufkit

Organization and Planning

Writing

Communication and Public Speaking

Time Management

Critical Thinking

Leadership

Activities/Community Involvement

Citizens' Climate Lobby (CCL): Hudson, OH chapter (2018 – Present)

- Helped develop, promote, and lead the new CCL chapter in Ohio's 14th congressional district
- Discuss and promote bipartisan climate policy (Energy Innovation and Carbon Dividend Act) with U.S. senators and representatives

May 2019 – present

School Talks

- Visit schools to do experiments and talk about weather safety

2013 – present

Kent State University Student Complaints Committee

August 2018 - present

Kent State University Research Award selection committee

October 2019

STEM Commercialization & Entrepreneurship Forum

- Lead a discussion for high school students on careers in STEM

September 2019

Geography Department Senator for the Graduate Student Senate

2019 – 2020

Geography Graduate Student Associated Executive Board member

2018 – 2020

Panelist for the “Countdown to Climate Catastrophe” event at Kent State University
 - Discuss how the community can help mitigate and adapt to climate change
 November 2018

Graduate Student Association Executive Board member
 2016 – 2017

Geography Department Website Designer/Editor
 August 2018 - present

Participate in the WxChallenge: A nationwide forecasting competition
 September 2014 – present

Volunteer dog walker at One of a Kind Pet Shelter
 2015 - Present

Participated in 2-week National Award-winning storm chasing field study at Western Kentucky University
 May 2013

WKU Weather Camp assistant Director
 - Helped create and lead a week-long overnight weather camp for high school student
 - First ever student lead weather camp for kids in the United States
 July 2013

Habitat for Humanity (Bowling Green, KY)
 - Assist with building houses
 June 2012 – August 2014