

Curriculum Vitae
ZOE NEVAEH CARYL

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EDUCATION

Master of Arts in Risk Communication

Expected May 2027

University of Illinois Urbana-Champaign

Advisor: Dr. Joseph Trujillo-Falcón

Bachelor of Science (with Distinction in Research) in Atmospheric Science

May 2025

Minors: Earth, Society, and the Environment and Political Science

University of Illinois Urbana-Champaign

HONORS AND AWARDS

Top Student Paper Panel Applied Communication Division

Fall 2025

Awarded to a student whose paper is recognized for its excellence, quality, and contribution to the field of communication

Outstanding Undergraduate Research Paper Award

Spring 2025

Highlighted excellent undergraduate research papers in the Department of Climate, Meteorology, and Atmospheric Sciences

NSF Graduate Research Fellowship Program Honorable Mention

Spring 2025

Recognized for exceptional merit in the NSF GRFP, a highly competitive fellowship program for STEM undergraduate and graduate students.

NSF National Hazard Center ASPIRE Workshop

Spring 2025

Invited to join 20 researchers, practitioners, and scientists as part of a workshop for critical discussions on understanding human behavior, perception, and decision-making in all stages of disaster management.

NSF NCAR Undergraduate Leadership Workshop

Summer 2024

Selected as one of 19 students nationwide in the Earth and Atmospheric Sciences field to participate in a prestigious workshop to advance their leadership potential in the field.

NFCA All-American Scholar Athlete

Spring 2024

Recognizes student-athletes who established academic excellence with a 3.5 or better GPA on a 4.0 scale.

Academic All-Big Ten

Several Semesters

Acknowledges varsity athletes who have a cumulative grade-point average of 3.0 or higher.

Dean's List

Several Semesters

Honors students whose GPA ranks in the upper 20% of their college per semester, or 3.94.

University of Illinois Athletic Scholarship

Fall 2021

Granted to student-athletes who demonstrate exceptional athletic ability and academic commitment.

Living the Dream Inc. - Dr. Martin Luther King, Jr. Scholarship

Fall 2021

Awarded to students who create positive change and empower communities through education & social justice.

Zeta Phi Beta Blue Hope Scholarship

Fall 2021

Recognizes local Kansas students to encourage academic and service-based growth.

TPS Foundation Drs. Stanley and Tiffany Anderson Scholarship

Fall 2021

Presented to a student committed to making a personal investment in the Topeka community.

PUBLICATIONS

Caryl, Z. N., Trujillo-Falcón, J. E., & Droegemeier, K. K. (2026, Accepted). Navigating rising waters: Empowering Shunganunga Creek floodplain communities through protection motivation theory. *Weather, Climate, and Society*.

ORAL PRESENTATIONS AT SCHOLARLY CONFERENCES

Caryl, Z. N., Trujillo-Falcón, J. E., Wilson, A., & Bitterman, A. L. (2026, January). *Public understanding and protective action thresholds on the atmospheric river scale*. 40th Conference on Hydrology, 106th American Meteorological Society Annual Meeting, Houston, TX.

Trujillo-Falcón, J. E., **Caryl, Z. N.,** Wilson, A., & Bitterman, A. L. (2026, January). *Atmospheric rivers in the public mind: Awareness, hazard associations, and misconceptions*. 40th Conference on Hydrology, 106th American Meteorological Society Annual Meeting, Houston, TX.

Caryl, Z. N., Trujillo-Falcón, J. E., & Droegemeier, K. K. (2025, November). *Applying protection motivation theory to enhance risk communication for floodplain communities along the Shunganunga Creek*. Applied Communication Division, 111th Annual Convention, National Communication Association, Denver, CO. **Top Student Paper Panel.**

Caryl, Z. N., Trujillo-Falcón, J. E., & Droegemeier, K. K. (2025, April). *Applying Protection Motivation Theory to Enhance Risk Communication Along the Shunganunga Creek*. University of Illinois Undergraduate Research Symposium, Urbana, IL.

Caryl, Z. N., Trujillo-Falcón, J. E., & Droegemeier, K. K. (2025, April). *From risk to resilience: Enhancing communication for floodplain communities along the Shunganunga Creek*. Invited speaker at the ASPIRE Workshop, Institute of Behavioral Science, University of Colorado-Boulder, Boulder, CO.

POSTER PRESENTATIONS AT SCHOLARLY CONFERENCES

Caryl, Z. N., Trujillo-Falcón, J. E., & Droegemeier, K. K. (2025, February). *From risk to resilience: Enhancing communication for floodplain communities along the Shunganunga Creek*. School of Earth, Society, and the Environment Research Review, Urbana, IL. **Outstanding Undergraduate Technical Poster Award and Outstanding Undergraduate Science Communication**

Caryl, Z. N., Trujillo-Falcón, J. E., & Droegemeier, K. K. (2025, January). *From risk to resilience: Enhancing communication for floodplain communities along the Shunganunga Creek*. 24th Annual Student Conference, 105th American Meteorological Society Annual Meeting, New Orleans, LA.

RESEARCH EXPERIENCE

Graduate Research Assistant

Fall 2025

Advancing Language Equity and Resilience in the Atmospheric Sciences Lab, University of Illinois, Urbana, IL
Advisor: Dr. Joseph Trujillo-Falcón

- Conduct the first nationwide survey on Atmospheric Rivers (AR) in the United States to examine protective actions and risk perceptions related to the AR scale

- Analyze collected survey data using R-Studio to identify patterns and generate insights for improved risk communication

Undergraduate Thesis

Spring 2025

Advancing Language Equity and Resilience in the Atmospheric Sciences Lab, University of Illinois, Urbana, IL

Advisors: Dr. Joseph Trujillo-Falcón and Dr. Kelvin Droegemeier

- Conducting 11 interviews with diverse floodplain community members, including teachers and former drainage board members, to assess flood risk perceptions and resilience to climate change
- Performing qualitative thematic analysis, identifying communication gaps in local decision-making processes regarding flood mitigation efforts to provide recommendations to local practitioners

Smithsonian Climate Education Intern

Summer 2024

Smithsonian Institute and NSF University Corporation of Atmospheric Research, Boulder, CO

Advisors: Katie Wolfson, Leanne Rehme

- Researched, tested, and developed NGSS-aligned activities for middle and high school students, integrating weather, climate change, and engineering topics
- Co-taught learning labs and field trips at the National Center for Atmospheric Research and communicated a range of scientific topics to diverse audiences

Undergraduate Research Assistant

Spring 2023

High-Res Dynamical Downscaling of Future Temperature Project, University of Illinois, Urbana, IL

Advisor: Sudhansu Rath

- Transported Weather Research Forecasting (WRF) heatwave data from the National Energy Research Scientific Computing Center (NERSC) to the Keeling Resourcing Open Geospatial Education and Research (ROGER) computer
- Utilized Python, netCDF, NCO, and CDO coding operators to clean, organize, and group parameters for past, current, and future climate projections

TEACHING AND PRACTICAL EXPERIENCE

CMN-101 Public Speaking *Instructor of Record*

Fall 2025

Department of Communication, University of Illinois, Urbana, IL

- Teach and mentor 48 students across two sections, guiding them in developing effective public speaking skills and strategies.
- Design lesson plans, deliver lectures, and provide constructive feedback to enhance students' confidence and communication abilities.

ATMS-120 Severe and Hazardous Weather Teaching Assistant

Fall 2024-Spring 2025

Department of Climate, Meteorology, and Atmospheric Sciences, University of Illinois, Urbana, IL

- Assist the lead professor up to 20 hours a week by grading assignments and managing online question-and-answer boards to help students
- Provide one-on-one academic support and office hours to over 600 students to improve their understanding of weather and climate-related topics, and to boost performance

Communication and Marketing Intern

Fall 2023-Spring 2025

College of Liberal Arts and Sciences Career Services, University of Illinois, Urbana, IL

- Directing a team of interns to strategize and execute student engagement initiatives, resulting in increased participation in Career Services events

- Created digital, print, and video content to enhance outreach, promote alumni success, and connect students with career resources

Liberal Arts and Science Ambassador

Fall 2022-Spring 2025

College of Liberal Arts and Sciences, University of Illinois, Urbana, IL

- Represented women in STEM by advocating for the needs and potential changes to the Dean of Liberal Arts and Sciences to improve the College of Liberal Arts and Sciences
- Recruited future Illini to the College of Liberal Arts and Sciences by creating social media marketing and blog posts in Adobe Creative Cloud and Microsoft 365

Division of Intercollegiate Athletics Mentorship Program

Fall 2022-2023

University of Illinois Athletics, Urbana, IL

- Worked with Director John J. Kim of the Illinois Environmental Protection Agency (EPA) and other professions at the State Water Survey and U.S. Senate staff to explore career pathways
- Expanded mentorship network and developed insights into environmental and atmospheric science policy priorities

AFFILIATIONS AND SERVICE ACTIVITIES

Student Member, American Meteorological Society Board on Societal Impacts

Spring 2025

Bridges the gap between scientific research and actionable, practical applications to enhance societal resilience through interdisciplinary collaboration

Organizational Communication Mini Conference Planning Committee

Fall 2025

Lead in the development of the Organizational Communication Mini Conference to provide grad students a platform to present research, build connections, and prepare for future careers

National Communication Association (NCA)

Fall 2025

Interact with scholars and researchers to advance the study and application of communication across diverse contexts and audiences

American Meteorological Society (AMS)

Fall 2023-Current

Engage with peers, mentors, and scientists to advance the atmospheric and related sciences, applications, technologies, and services for the betterment of society

Undergraduate Student Mentor

Fall 2024-Spring 2025

Provide guidance and support for young undergraduate students in their academic and professional development to foster their success and confidence in the field

Illini Allies – Co-Leadership Team Member

Fall 2023-Spring 2025

Create safe spaces for LGBTQIA+ Illini student-athletes, staff, and allies on campus to share perspectives, build community, and encourage differences

Big Ten Queer Student Athlete Collation

Fall 2023-Spring 2025

Through the Sports Equality Foundation, empower LGBTQIA+ athletes and the community through education, representation, and equality to make positive change

Illinois Student Organization of Meteorology

Fall 2022-Spring 2025

Represent the University of Illinois Chapter of the American Meteorological Society by serving, promoting, and communicating atmospheric sciences-related topics to the university

Division I Softball Student-Athlete

Fall 2021-Spring 2025

Participate in softball activities for over thirty hours a week, including lifts and practice, to compete as a team for the same goal of winning the Big Ten and a National Championship

SKILLS AND CERTIFICATIONS

- Provided peer review in *Weather, Climate, and Society*
- Expertise in quantitative and qualitative social science research
 - Quantitative Programming Language: R and Python
 - Qualitative Coding: Phronetic Iterative Qualitative Data Analysis, Thematic Analysis
- Numerical Modeling: Weather Research and Forecasting model (WRF)
- Collaborative Institutional Training Initiative, Core IRB Training (Active)