

Liam Thompson

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PROFILE

Research Interests:

- Understanding the *impacts of climate change* on societies
- *Coupled atmospheric ocean feedbacks* such as the El Nino Southern Oscillation (ENSO)
- *Land use land changes* because of urbanization
- Applying *scaling theory* to applications of atmospheric science
- *Economic impacts* from meteorological and climatological factors (e.g. impacts to the aviation industry and agriculture)
- *Atmospheric chemistry and aerosol composition* in urban areas
- *Developing techniques to enhance the educational quality and teaching methods* of students in science, technology, engineering, and mathematics (STEM) fields.

Google Scholar: <https://scholar.google.com/citations?user=wCdxrF4AAAAJ&hl=en&oi=ao>

GitHub: <https://github.com/L12D2>

LinkedIn: www.linkedin.com/in/liamthom

EDUCATION

University of Oklahoma, Norman, Oklahoma

August 2022—May 2026

GPA: 3.96 / 4.0

Credits Earned: 113 Semester Hours

Bachelor of Science | Meteorology

Bachelor of Science | Environmental Sustainability

Minor | Mathematics

Undergraduate Certificate | Sustainable Energy Systems

Relevant coursework:

- Introduction to Spatial Thinking
- Programming for Meteorology
- Atmospheric Circulations
- Managing for a Changing Climate
- Meteorology Statistics
- Applied Statistical Research Methods
- Thermodynamics
- Regional Climatology
- Physical Mathematics
- Dynamics 1
- Dynamics 2
- Atmospheric Chemistry
- Cloud Physics
- Fundamentals of Earth Systems, Energy, and Sustainability
- Energy in Society: A Systems Perspective
- Principles of Sustainability

Ongoing Relevant coursework:

- Dynamics 3
- Synoptic Meteorology
- Radiation and Remote Sensing

University of Alaska Fairbanks, Fairbanks, Alaska

May 2020—May 2022

GPA: 4.0 / 4.0

Credits Earned: 62 Semester Hours

Associates of Arts | General Studies

Graduated Summa Cum Laude

Relevant coursework:

- Differential and Integral Calculus 1
- Differential and Integral Calculus 2
- Differential and Integral Calculus 3
- General Chemistry 1
- Public Speaking
- Introduction to Behavioral Neuroscience Research
- Writing and the Sciences
- Biology and Society

EDUCATION ABROAD

Ming Chuan University (銘傳大學), Taipei, Taiwan
(台灣台北)

December 2024—January 2025

GPA: 4.0 / 4.0

Credits Earned: 3 Semester Hours

University of Oklahoma Arezzo, Arezzo, Italy

June 2023

GPA: 4.0 / 4.0

Credits Earned: 3 Semester Hours

EXPERIENCE

[August 2024—Present] South Central Climate Adaptation Science Center (SC CASC) *Research Assistant*

- **Analyzing** gridded climate products, including Daymet, Prism, nClimGrid, Livneh, and GridMet from 1980 to 2014
- **Utilize** the analysis to **support and inform** consortium decision makers and stakeholders using the South Central Climate Projections Evaluation Project's (C-PrEP) statistically downscaled climate projections

[June 2024—August 2024] Environmental Protection Agency (EPA) *Intern*

- **Collaborated** with the EPA Radiation Protection Division in Washington D.C. to research and improve the agency's understanding of the impact of precipitation events on local radiation levels, using RadNet, a nationwide, near-real-time, radiation monitoring system
- **Developed Python functions, scripts, and a web scraper** to analyze EPA's RadNet data in correspondence with NOAA NCEI meteorological data
- **Developed tools to quantitatively and qualitatively communicate** the impacts of precipitation on background radiation levels to ensure public audiences can determine the differences between normal and non-normal radiation. Communications can be used in regular public communication and engagement, and during times of an emergency
- **Supported communication with Tribal Nations** at a Regional Tribal Operations Committee (RTOC) meeting within EPA's Region 6 to raise awareness about the agency's Radiation Protection Division's ability to support Tribal Nations in radiation protection and during radiological emergencies
- **Supported the Indoor Environments Tribal Air Quality Tribal Program** through engagement with internal agency meetings

[January 2024—Present] Sustainable Urban Futures Lab (SURF) *Research Assistant*

- **Assessing the performance of the 40-year, 4-km CONUS404 dataset in urban environments**, one of the highest resolution continental-scale, convection permitting numerical weather prediction simulations
- **Utilize hourly, in-situ observations**, derived from a gap-filled urban weather database, to evaluate CONUS404's ability to reproduce station-level observed temperature, dewpoint, and wind speed on different spatial and temporal scales across the CONUS
- **Model evaluation is supporting** the NCAR CONUS404 model research and development team's understanding of the simulation's performance against station-level hourly, in-situ observations—one of the first model evaluations of its type
- **Lead author** manuscripts related to lab projects
- **Successfully developed and wrote** a research proposal that will investigate the influence of severe convective weather on ozone pollution in Oklahoma City, Oklahoma
- **Presenting author** at several regional, national, and international scientific conferences

[August 2023—Present] South Central Climate Adaptation Science Center (SC CASC) Community of Practice (CoP) *Research Assistant*

- **Collaborate with the Communicating Uncertainty CoP** to support the SC CASC in distilling climate information to stakeholders and agencies across four states—New Mexico, Texas, Oklahoma, and Louisiana—to support on-the-ground decision making
- **Lead author on a comprehensive literature review** that brings in an accumulated understanding of past and current research and identified research gaps in communicating the uncertainty in the global climate models
- **Evaluate and analyze qualitative stakeholder responses** from the SC CASC Understanding Uncertainty Partners Survey to understand how their respective agencies interpret uncertainty in global climate models, how agency-level perspectives differ from a scientific level, and subsequently how to improve the communication of uncertainty in the climate models

[May 2023—June 2024] South Central Climate Adaptation Science Center (SC CASC) Case Study Lead Author

- **Lead Author** on peer-reviewed case studies that highlight collaborative conservation, decision making, and policy implementation efforts across the SC CASC consortium
- **Conducted and coordinated interviews** with Federal land managers affiliated with the U.S. Forest Service, U.S. Army Corps of Engineers, academic researchers affiliated with North Carolina State University, Oklahoma State University, University of Georgia, and University of Arizona to synthesize field results from Federal and Tribal projects
- **Collaborated** with U.S. Fish and Wildlife Service, U.S. Geological Survey, and U.S. Bureau of Reclamation to lead the development of case studies that are aligned with agency and consortium priorities that are applicable to a broad audience of general users, natural resource managers, academic researchers, and Tribal Nations across the SC CASC and Southwest Fire and Climate Adaptation Partnership consortiums
- Case studies **synthesize and communicate** field results and publicly available reports that highlight the importance of Federal agency and Tribal Nation relationships, ecological justice, key policies that lay the framework for successful application of forest and fire management projects, and lessons learned for future land managers wanting to facilitate similar projects within their geographic jurisdictional boundaries
- **Led the development and publication** of four peer-reviewed case studies across Arizona, New Mexico, Oklahoma, and Alabama

[November 2022—August 2023] National Weather Center Tour Guide

- Worked with the School of Meteorology to **recruit** prospective College of Atmospheric and Geographic Sciences (A&GS) students via tours of the National Weather Center
- **Participated in student outreach and engagement events** that increased the awareness of career prospects within meteorology including those found in the Federal government such as the National Weather Service and Storm Prediction Center and in the private sector at companies such as Amazon
- **Provided tours** to professional organizations who hosted seminars at the National Weather Center
 - Provided a tour to approximately 20 military officials from the Pentagon who were participating in a congressionally mandated F-35 seminar in April of 2023
- Provided personal and group tours to the public that **highlighted** the behind the scenes work of generating a daily forecast, an 8-day convective outlook, and the criteria that trigger local National Weather Service weather forecast offices to issue weather warnings and watches
 - Provided a private tour to Oklahoma's Governor Stitt's Director of Appointments

[September 2022—May 2023] Cooperative Institute of Severe and High Impact Weather Research and Operations (CIWRO) Data Analyst

- Responsible for **analyzing** daily operations of Atmospheric Radiation Measurement (ARM) instruments across the Southern Great Plains, the East Coast, California, and Alaska

- **Created and sent** data quality problem reports (DQPR) to appropriate ARM managers to alert of malfunctioning equipment in order to maintain the integrity of the radiation measurements collected at the various sites for future research projects
- Sent **weekly** data quality reports (DQR) to create a database of completed quality checks
- **Participated** in the Eastern Pacific Cloud Aerosol Precipitation Experiment (EPCAPE) data collection campaign:
 - Future research on marine cloud development in polluted and non-polluted maritime regions is being supported by ARM instruments collecting aerosol data located in La Jolla, California
 - Submitted additional tri weekly DQRs during intensive observational periods (IOP) to ensure any faulty equipment is addressed in a timely manner in order to support the integrity of future research projects that utilize ARM data.
- **Participated** in the 2021—2022 Tracking Aerosol Convection Interactions Experiment (TRACER) data collection campaign
 - Campaign collected cloud and aerosol data to support ongoing research of deep convection near Houston, Texas

[November 2020—May 2024] North Star Tutors *Mathematics Tutor*

- **Mathematics tutor** for **grades 3 through college and continuing education** across the Fairbanks North Star Borough to ensure success in mathematic related courses including:
 - AP Calc AB
 - College and high school Precalculus
 - College and high school Trigonometry
 - Algebra 2
 - Algebra 1
 - Geometry
 - Mathematics grades 3—8
 - Chemistry
- Provided a primary **educational supplement** that was available outside of the classroom during the COVID-19 Pandemic and ensured all my students were at grade level performance, or above, and were prepared for the next mathematics course in their academic journeys
- Instilled **confidence** into my students regardless of their personal and academic backgrounds during a time when many students were facing a period of extreme uncertainty relating to the pandemic

PUBLICATIONS

(Italic: Lead Author)

1. **Thompson, L.**, Wang, C., He, C., Lin, T. S., Liu, C., & Dudhia, J. (2025). Assessment of convection-permitting hydroclimate modeling in urban areas across the contiguous United States. *Urban Climate*, 61, 102375. <https://doi.org/10.1016/j.uclim.2025.102375>
2. **Thompson, L. C.**, Moeser, C. D. (2024). “The Effects of Wildfire on Snow Water Resources Under Multiple Climate Conditions.” CART. Retrieved from <https://www.fws.gov/project/effects-wildfire-snow-water-resources-under-multiple-climate-conditions>.
3. **Thompson, L., C.** (2024). “Using Regional Soil Moisture to Map Wildfire Probability in the Rio Grande and Red River Watersheds.” CART. <https://www.fws.gov/project/using-regional-soil-moisture-map-wildfire-probability>

4. **Thompson, L., C.**, Léger, A., and Jewell, K. (2024). “Wood for Life, a Collaborative Partnership to Provide Wood to the Navajo Nation and Hopi Tribe.” *CART*. Retrieved from <https://arcg.is/0bX4PD>.
5. **Thompson, L., C.** (2023). “Rivercane Recovery to Support Tribal Cultural Practices.” *CART*. Retrieved from <https://arcg.is/10Omvi>.

CONFERENCES AND PRESENTATIONS

(Italic: Presenting Author, *: Co-author, ⊗: Presentation Award)

1. ⊗**Thompson, L.**, Wang, C. (2025, April). *Evaluating a Convection Permitting Simulation in Urban Areas across the Continental U.S.* Poster presentation at the 2025 Undergraduate Research Day. Norman, Oklahoma.
2. ⊗**Thompson, L.**, Wang, C. (2025, April). *Understanding the Influence of Convective Weather on Ozone Pollution in Oklahoma City, OK.* Poster presentation at the 2025 Undergraduate Research Day. Norman, Oklahoma.
3. **Thompson, L.**, Wang, E., Montecalvo, D., Snead, K. (2025, January). *Precipitation to Radiation: Understanding and Analyzing the Impact of Precipitation on Background Radiation Across the United States.* Poster Presentation at the 2025 American Meteorological Society Annual Student Conference. New Orleans, Louisiana.
4. ⊗**Thompson, L.**, Wang, C. (2025, January). *Assessing the Performance of a Convection-Permitting Regional Hydroclimate Simulation in Urban Areas across the Continental United States.* Poster presentation at the 2025 American Meteorological Society Annual Meeting. New Orleans, Louisiana.
5. **Thompson, L.** (2025, December). *University (大学) in America (美国): The University of Oklahoma.* Oral presentation to Taiwanese highschoolers. Taipei, Taiwan.
6. **Thompson, L.**, Wang, C. (2024, December). *Hydrometeorological evaluation of a continental-scale convection-permitting simulation across urban environments.* Oral presentation at the 2024 American Geophysical Union Annual Meeting. Washington DC.
7. ⊗**Thompson, L.**, Wang, C. (2024, October). *A Long-Term Regional Assessment of the CONUS404 Bulk Parameterization in Urban Areas.* Poster presentation at the University of Oklahoma’s 2024 GIS Day. Norman, Oklahoma.
8. **Thompson, L.**, Wang, C. (2024, August). *Evaluating the Hydrometeorological Performance of CONUS404 in Urban Environments.* Model evaluation findings presentation to the CONUS404 research and development team. Presented from Norman, Oklahoma to audiences in Boulder, Colorado.
9. **Thompson, L.** (2024, August). *From Rainfall to Radiation.* Final Research Presentation to EPA’s Radiation Protection Division. Presented from Norman, Oklahoma to audiences in Washington D.C.
10. Montecalvo, D., Wang, E., ***Thompson, L.** (2024, July). *EPA’s Radiological Emergency Response Capabilities.* Presentation at the Regional Tribal Operations Committee (RTOC) Meeting. Albuquerque, New Mexico
11. **Thompson, L.** (2024, June). *Introduction to Research: A Guide to Learning from and Embracing your Mistakes.* Oral Presentation at the 2024 National Weather Center (NWC) Research Experience for Undergraduate Students (REU) Program. Norman, Oklahoma.
12. **Thompson, L.** (2024, January). *Understanding the Consumer Awareness of Increasing Coffee Prices in Correspondence with Extreme El Nino Southern Oscillation Events.* Poster Presentation at the 2024 American Meteorological Society (AMS) Annual Student Conference. Baltimore, Maryland.

13. Carter, J., Kraker, H., ***Thompson, L. (2023, November).** *The Conservation and Adaptation Resources Toolbox (CART)*. Lead Author and Poster Presentation at the South-Central Climate Adaptation Science Center Fall Science Meeting. Lubbock, Texas.

RESEARCH GRANTS & AWARDED PROPOSALS

2025 Spring First Generation Undergraduate Research and Creative Activity (URECA) Fellowship

- Awarded a grant to research the influence of convective weather on ozone pollution in Oklahoma City, Oklahoma
- \$1,000

2024 Honors College Study Abroad

- Award to help undergraduates offset the travel costs of studying abroad
- \$1,000

2024 Honors College Travel Assistance

- Award to support travel expenses to research conferences
- \$1,110

2024 Undergraduate Research Opportunities Program (UROP) Grant

- Research grant to support my model evaluation of CONUS404
- \$425

COMMITTEES

[March 2025—Present] American Meteorological Society (AMS) Board on Environmental Information Processing Technologies (EIPT)

- **Student Chair** on the AMS EIPT Committee
- Help **coordinate and plan** the annual EIPT conference with scientists across the Federal government (e.g. NOAA) and the National Center for Atmospheric Research (NCAR)
- **Communicate student needs** to EIPT Chairs to help ensure conference offerings can be applicable for early-career and emerging professionals
- **Increase** engagement among early-career and emerging professionals during the annual EIPT conference
- Attend monthly committee calls

[August 2024—January 2025] American Meteorological Society (AMS) Student Conference Session Chair

- **Chaired** the Integrated Warning Team (IWT) Workshop, which hosted approximately 100 participants from several universities across the U.S.
- **Coordinated** session development with one additional chair at The Pennsylvania State University
- **Collaborated** with 12 emergency responders affiliated with the Cooperative Institute of Severe and High Impact Weather Research and Operations (CIWRO), National Weather Service / NOAA, and FEMA / Department of Homeland Security to **develop** a natural disaster case study

- **Developed and coordinated** the IWT session to expose participants to the complex decision-making process emergency managers face when responding to a natural disaster
- **Encouraged analyzing the natural disaster case study from different perspectives**, including those of the National Weather Service forecast offices, state environmental protection agencies, private businesses, Federal-, state-, and county-level emergency managers and authorities, and the public themselves

[August 2024—Present] University of Oklahoma Integrity Council Appeals Panel

- **Selected** to sit on the Integrity Council Appeals Panel
- Ensure timely **reviews** of student appeals to their academic conduct cases

[April 2024—May 2025] University of Oklahoma School of Meteorology (SoM) Faculty Interview Panel

- Served on several new-hire faculty interviews, luncheons, and seminars
- Interviewed candidates for the SoM Director, a combined social science and communications faculty position, an aviation meteorology faculty position, and an undergraduate teaching lecturer position
- Provided feedback to the associated hiring committees from the perspective of an undergraduate
- Ensured undergraduate involvement and voices in the SoM hiring process

[January 2024—Present] American Meteorological Society (AMS) Student Conference Planning Committee (SCPC)

- Help **coordinate and plan** the annual AMS Student Conference, which includes accounting for the logistics related to the poster sessions and networking reception
- **Serving** on a subcommittee that **reviews** student abstracts submitted to the AMS Student Conference

[January 2023—February 2024] Cooperative Institute of Severe and High Impact Weather Research and Operations (CIWRO) Fire Weather Forecasting Workshop Planning Committee

- Involved in **choosing** four fire weather themes—fire forecasting, sub-seasonal to seasonal (S2S) understanding of fire weather, operational tools, needs, and communication of emergency management, and wildfire impacts to land, ecology, and land management—to be emphasized during the 13 to 15 February 2024 Fire Weather and Forecasting Workshop
- **Coordinated** a mutual date to hold the workshop to ensure maximum attendance from Federal and academic agencies and partners
- **Collaborated** with CIWRO, University of Oklahoma (OU) School of Meteorology (SoM), the Oklahoma Mesonet, the Storm Prediction Center (SPC), the National Severe Storms Laboratory (NSSL), and National Weather Service (NWS) Weather Forecast Office (WFO) Norman to identify the **needs, resources, and uncertainties** of researchers and forecasters engaged in fire weather research and decision making

LEADERSHIP

[May 2025—Present] Oklahoma Weather Lab (OWL)

- **May 2025—Present:** Director of Development
- Selected to serve as the OWL Director of Development
- Developing Python workshops that provide students real-world skills and opportunities to apply Python to solve meteorological problems

[May 2025—Present] University of Oklahoma Integrity Council

- **May 2025—Present:** Vice Chair of Reviews (VCR)
- Responsible for **organizing and facilitating** appeal meetings
- **Manage** sensitive student information to ensure compliance with student FERPA rights

[September 2023—Present] American Meteorological Society (AMS) Board of Student Affairs (BoSA) Student Outreach and Engagement Committee (SOEC)

- **2024—Present:** Co-chair in Training (CCIT)
- **Lead and support** 20 committee members across the U.S.
- **Develop and implement** a variety of online initiatives to support the AMS BoSA SOEC in finding interactive ways to engage with students through social media presence
- Engage in outreach to field professionals, including forecasters, professors, agency directors, researchers, private industry, and more to develop content that provides students with a broad understanding of potential career paths and internship opportunities
- **Create graphics** for student-led initiatives, including highlighting AMS Student Conference session chairs
- **Collaborate** with additional AMS committees, including the Student Conference Planning Committee, Local Chapter Affairs Committee, and more to communicate initiatives and messaging, such as webinars, to AMS local student chapters and online audiences

[June 2023—Present] Student Chapter of the American Meteorological Society and National Weather Association (SCAN)

- **2025—2026:** Chapter President
 - Facilitate the collaboration of **13** board members
 - Serve as a mentor and support the development of the future chapter leaders
 - Ensure SCAN presence at several outreach events across the University of Oklahoma and across the College of Atmospheric and Geographic Sciences
 - Serve as the primary point of contact for college faculty, staff, and community leaders
 - Build and foster the relationship between our local chapter and the national American Meteorological Society and National Weather Association
 - Facilitate the scheduling of monthly chapter meetings and inviting guest speakers
 - Ensure chapter compliance with constitutional mandates

- **2024—2025: Vice President of External Affairs**
 - Lead director of chapter and community relations and initiatives
 - Engaged in outreach to incoming student classes to increase chapter involvement
 - Served as the National Weather Association liaison
 - Served as the 2025 Big Event coordinator for our local chapter and two additional student organizations within the School of Meteorology
 - Organized community food bank and Christmas toy drives to help build a positive community impact and presence
 - Organized community fundraisers
- **2023—2024: Publicist**
 - Lead manager of all SCAN social media accounts
 - Promote SCAN activities, events, and fundraisers via social media
 - Highlight member and chapter achievements
 - Elected in Spring 2023 by active SCAN members

[May 2023—Present] Student Affairs Committee (SAC)

- **2025—2026: Undergraduate Vice Chairperson**
- **2024—2025: Junior Representative**
- **2023—2024: Sophomore Representative**
- Elected in Spring 2023 by University of Oklahoma School of Meteorology colleagues
- Moderate the bi-annual undergraduate town hall
- Sit on the School of Meteorology Undergraduate Studies Committee
- Provide a bridge of communication between students and faculty within the School of Meteorology
- Provide an avenue of communication to university administration for students needing help filing diversity, equity, and inclusion (DEI) grievances, defusing collegued-colleague academic classroom conflicts, Title IX reporting resources and procedures, and more
- Help direct students to resources available at the University of Oklahoma, including tutoring and mental health facilities
- Provide faculty course feedback based upon student input at bi-yearly townhalls
- Collaborate with University of Oklahoma student organizations, including Oklahoma Weather Lab (OWL) and Student Chapter of the American Meteorological Society and National Weather Association (SCAN) to organize an annual natural disaster relief fundraiser to help support rebuilding costs of victims impacted by natural disasters
- Organize and coordinate an annual multicultural festival with the College of Atmospheric and Geographic Sciences

INVOLVEMENT

[April 2025] University of Oklahoma Graduate Teaching Assistant (GTA) Training

- Helped develop an updated set of GTA orientation training videos

- Ensured representation of undergraduate needs, concerns, and desires from GTAs who serve in grading and teaching capacities
- Videos are viewed by every GTA that becomes admitted to graduate programs at the University of Oklahoma

[November 2024—Present] Geography and Environmental Sustainability (GES) Club

- Active member

[August 2022—Present] Oklahoma Weather Lab (OWL)

- Gaining operational forecasting skills by generating a daily outlook that was distributed throughout University of Oklahoma by OU Nightly
- Learning technical writing experience by writing a local synopsis and statewide short-term and long-term forecasts
- Experience creating forecasts that are distributed within a podcast to local radio stations
- Produced weather brief podcasts for Key West, Florida
 - Produced a brief that was aired on Key West's local radio station in the days prior to 2022 Hurricane Ian's landfall
- One of the top 5 students who produced the most accurate temperature forecasts within my weekly OWL shift

[June 2023] University of Oklahoma Arezzo Study and Volunteer Abroad

- Selected to participate in a study abroad at University of Oklahoma Arezzo in Italy
- Contributed to the local community by beautifying a park that had been run down due to lack of city maintenance
 - Park was slated to be shut down to the public if renovations were not complete
- Completed renovations created an environment that fostered safety for the local school children

[August 2022—May 2023] President's Community Scholars Member

- Selected by the University of Oklahoma Office of Leadership and Volunteerism to represent a seat within the President's Community Scholars (PCS). I was 1 of 100 selected out of approximately 10,000 applications to be a member within PCS.
- Learned community-oriented leadership with an emphasis on volunteerism by serving at various job sites and attending weekly meetings where I heard and learned from experienced individuals who had community-oriented leadership experience

ADDITIONAL SKILLS & EXPERIENCE

Python

- Proficient in using Python to extract, store, operate, and visualize time series data
- Proficient in utilizing Python to conduct statistical data analysis
- Ability to work with a variety of data types including CSV, netcdf, and json files

- Proficiency utilizing a variety of Python libraries including Pandas, Matplotlib, Metpy, Cartopy, Numpy, Seaborn, and Pygrib to perform various numerical operations on datasets

R

- Proficiency using the tools within R to perform a variety of statistical analyses on time series data
- Ability to work with a variety of data types including CSV and netcdf files
- Ability to work with qualitative data in R

CPR / AED Training

- Received CPR/AED training
- Certified for 2 years

Microsoft Office Specialist (MOS)

- Certified Microsoft Office Specialist demonstrating a robust understanding of effectively utilizing the tools within the Microsoft Office suite: Excel, Word, PowerPoint

Warning Decision Training Division (WDTD) Experience

- Participated in an NWS Norman Weather Forecast Office live operations simulation of the May 6th Oklahoma severe weather outbreak issuing: Flash flood warnings, severe thunderstorm warnings, and tornado warnings

National Weather Association (NWA) and Student Chapter of the American Meteorological Society and National Weather Association (SCAN) Fire Weather Forecasting Training

- Trained by Storm Prediction Center (SPC) forecasters to recognize: Climatic factors that influence fire season, meteorological factors that influence severe fire outbreaks, mechanics involved in producing a fire weather forecast

Introduction to Air Quality in Tribal Communities

- Training course presented by the Institute for Tribal Environmental Professionals
- 20 instructional hours

VOLUNTEER

[April 2025] The Big Event

[January 2025] American Meteorological Society (AMS) Volunteer Student Assistant

[December 2024] American Geophysical Union (AGU) Outstanding Student Presentation Awards (OSPA) Poster Judge

[October 2024] National Weather Festival

[October 2024] Advanced Radar Research Center (ARRC) Homecoming Parade

[August 2024] National Weather Center Camp Crimson Open House Panelist

[January 2024] American Meteorological Society (AMS) Volunteer Student Assistant

[April 2024] The Big Event

[October 2023] National Weather Festival

[August 2023] National Weather Center Camp Crimson Open House Panelist

[August 2023] NOAA Urban Heat Island (UHI) Campaign
[June 2023] Volunteer abroad at the University of Oklahoma Arezzo
[April 2023] The Big Event
[October 2022] National Weather Festival
[October 2022] School of Meteorology Homecoming Parade

PROFESSIONAL AFFILIATIONS

[December 2024—Present] Gamma Theta Upsilon
[July 2024—Present] American Geophysical Union
[April 2024—Present] National Weather Association
[September 2023—Present] American Meteorological Society
[August 2022—Present] Student Chapter of the American Meteorological Society and National Weather Association (SCAN)

HONORS AND AWARDS

2025: Barry Goldwater Scholar
2024: NOAA Hollings Scholar
2025: School of Meteorology Director's Recognition for Outstanding Service to the Department as an Undergraduate Student
2025: Regents' Award for Outstanding Junior
2025: President's Award for Outstanding Volunteer
2025: Kirsten Partridge Life Award
2025: Thomas J. Lockhart Memorial Scholarship in Meteorological Measurements & Observing Systems
2025: Nutter Scholarship
2025: Lt. William Scott Scholarship
2025: Will and Webster Scholars Fund
2025: Student Intern Scholarship
2024: President's International Scholarship
2024: Lloyd Noble Trailblazer Scholarship
2024: College of Atmospheric and Geographic Sciences Outstanding Junior
2024: NWAFA Bob Glahn Scholarship in Statistical Meteorology
2024: Sustainable Energy Systems Scholarship
2024: Ralph and Margaret Olson Award
2024: President's Award for Outstanding Sophomore
2025, 2024: Spring President's Honor Roll
2024, 2023, 2022: Fall President's Honor Roll
2023: Spring Dean's Honor Roll
2023: Participation in University Organizations, Academic Achievement, Community Service, and Excellence in Leadership (PACE) Award
2023: President's International Travel Fund (PITF)
2023: SC CASC International Studies Scholarship
2022: Elks National Scholar
2022: University of Alaska Fairbanks Institutional Honor
2021: Arctic Innovation Competition Junior Division Semifinalist

POSTER AWARDS

2025: 1st Place in the Undergraduate Engineering and Physics Poster Presentation Competition, Undergraduate Research Day

2025: 3rd place in the Student Poster Competition, 33rd Conference on Weather Analysis and Forecasting (WAF) / 29th Conference on Numerical Weather Prediction (NWP)

2024: 1st place in the Undergraduate Student Poster Competition, GIS Day