

Samuel J. Porter

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Weather Demo Reel: <https://youtu.be/pSw1KY2BwKU> *LinkedIn:* www.linkedin.com/in/sam-porter-bb056626b

EDUCATION

Masters of Science (Atmospheric Sciences)

Expected Spring 2025

The Ohio State University, College of Arts and Sciences

Columbus, OH

Severe Weather/Tornado Research

Advisor: Dr. Jana Houser

Bachelor of Atmospheric Sciences

Autumn 2021-Spring 2024

The Ohio State University, College of Arts and Sciences

Columbus, OH

Major GPA: 3.88 | Cumulative GPA: 3.56

RELAVENT COURSEWORK

Microclimatological Measurements	Synoptic Analysis and Forecasting	Calculus I, II, and III
Boundary Layer Climatology	Synoptic Meteorology Lab	Differential Equations
Dynamic Meteorology I and II	Severe Storm Forecasting	Physics I and II
Atmospheric Thermodynamics	Cartography and Map Design	Chemistry I
Basic Meteorology	Principles of Oceanography	Statistics
Geo-Visualizations	Developing Geographical Thought	

RESEARCH EXPERIENCE

Investigation of Why Thunderstorms Weaken Nearing the Appalachians, The Ohio State University

Advisor: Dr. Jana Houser

Autumn 2023 - Present

- Developing an ongoing master’s thesis
- Develop a planned procedure to investigate atmospheric environmental conditions using python scripts to pull in severe weather parameters: Temperatures, CAPE, CIN, Wind Shear, SRH, Lapse Rates, MSLP, LCL Heights using ERA5 reanalysis data
- Comparing tornadic outbreak events for 2019 outbreaks in two regions in Ohio Valley: Western Ohio and Eastern Ohio, Western Kentucky and Eastern Kentucky

24-Hour Accuracy of Three Major Weather Prediction Models, Team Lead *Autumn 2023 – Spring 2024*

- Deployed a temperature/humidity sensor, anemometer, and a tipping bucket rain gauge to collect temperature, dewpoint, wind, and precipitation data at 00Z, 06Z, 12Z, and 18Z
- Collected 24-hour forecast data from three NWP Models (GFS, NAM, HRRR) at the specified times
- Aggregated and analyzed data using Excel to create visual graphs and perform calculations of deviations between our collected data to the forecast model data
- Organized a variety of team meetings to meet our project goals
- Developed a project proposal, abstract, and findings report

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- Produced a data backed conclusion for the accuracy of NWP Models, improving the forecasting methods of meteorologists when analyzing NWP Models when creating their own forecasts

Evaluating Weather Forecasting App Accuracy in Columbus, Ohio, Team Lead *Autumn 2023*

- Deployed meteorological instrumentation to collect temperature, dewpoint, wind, and precipitation data at 00Z, 12Z, and 18Z
- Collected 24-hour forecast data from three popular weather apps: Apple Weather, AccuWeather, and The Weather Channel
- Aggregated and analyzed data using Excel to create visual graphs and perform calculations of deviations between our collected data to the forecast model data
- Organized a variety of team meetings to meet our project goals
- Developed a project proposal, abstract, and findings report
- Produced a data back conclusion for the accuracy of popular weather apps

Natural Hazard Climatological Risk Assessment, NWS Cleveland *Spring 2023 – Autumn 2023*

Summer Advisors: Raelene Campbell and Zachary Sefcovic

- Collected and aggregated tornado, hail, wind, flood, winter weather, temperature, drought, and dam failure data
- Analyzed meteorological data to create a risk assessment for Medina County (population: 182,470) and Summit County (population: 540,430) in Cleveland's County Warning Area
- Developed an in-depth methodology document for Meteorologists across the National Weather Service to utilize when conducting a climatological risk assessment for future counties and projects
- Presented to NWS Cleveland Meteorologist Leadership and will be given out to NWS Meteorologists and county emergency managers

PROFESSIONAL EXPERIENCE

Graduate Teaching Associate, The Ohio State University, Columbus, OH *August 2024-Present*

ATMOSSC 5950: Atmospheric Thermodynamics (20 Students)

Instructor: Dr. Jay Hobgood

Volunteer/On-Site Meteorologist, Medina County Emergency Management Agency & Homeland

Security, Medina, OH

May 2024-August 2024

(25 hours/week) (Volunteer), Ben Nau (330) 242-5394

5834 Heather Hedge Dr., Chippewa Lake, OH 44215

- Led Extreme Weather Training Seminar through the Medina County Health Department, NECO, and Medical Reserve Corps (roughly 100 people in attendance) covering twelve counties in Northeast Ohio for the sake of providing weather awareness and safety preparedness methods to agencies and organizations
- Led Doppler Radar Training to Medina County Communications Team (roughly 20 people in attendance) consisting of an in-depth analysis of radar archive data and forecasting methods for tornadoes and tornado safety preparedness
- Provided hourly forecasts for Medina City Fireworks (July 3, 2024) (10,000-15,000 in attendance)

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- On-site Meteorologist for Medina County Fair providing morning weather briefings to fair directors, police chiefs, and EMS
- Led Emergency boat crash training and search and rescue methods to children (roughly 75 children) to provide emergency awareness methods to children at a young age
- Updated 2024 version of Medina County's Emergency Mitigation Plan consisting of: creating maps, graphs, and visual graphics in addition to writing descriptive meteorological explanations and forecasting methods for all weather hazards impacting Medina County (will be published to the public Autumn 2024)
- Received certification of completion of OH-202 Debris Management Workshop led by Ohio Emergency Management Agency with the intention of sharpening my knowledge in community efforts to dispose of debris from natural weather hazard events
- Attended Medina County Chief's and executive meeting

Meteorologist Intern, WSYX ABC 6, Columbus, OH

September 2023 – December 2023

*(15 hours/week) (\$17/hour), Marshall McPeck (614) 481-6666
1261 Dublin Rd, Columbus, OH 43215*

- Developed effective communication skills, improving public speaking strength
- Applied forecasting skills in creating weather hits and segments using MAX Weather and MAX Reality graphics
- Produced daily forecasts through a combination of forecasting models such as the following: GFS, EURO, CFS, GEFS Plumes, NAM, and HRRR

Student Volunteer, National Weather Service, Cleveland, OH

May 2023 – August 2023

*(20 hours/week), (Volunteer), Alexa Maines, (216) 416-2914
925 Keynote Circle, Suite 314, Brooklyn Heights, Ohio 44131*

- Assisted in Severe Weather Operations through documenting social media storm reports
- Practiced sending out daily forecasts to the public alongside other NWS Meteorologists
- Led morning weather briefings and participated in the June 15th, 2023 tornado outbreak impacting Northwest Ohio (NWS Public Information Statement: [June 15, 2023 Severe Weather & Tornadoes](#))
- Attended annual meetings with Ashland County and Ottawa County EMA's and dispatch centers
- Assisted in documenting observations with USGS River Gauge Sites along the Chagrin River
- Experience in AWIPS

WX Forecasting Challenge, The Ohio State University, Columbus, OH

Autumn 2022 – Winter 2023

- Created forecasts daily in different locations within the United States
- Used a combination of GFS, GEFS Plumes, NAM, and HRRR

Retail Summer Associate Leader, Hinckley Lake Boathouse, Hinckley, OH

May 2021 – October 2023

*(35 hours/week), (\$15.50/hour), Melissa Pinto, (330) 278-2160
1 West Dr, Hinckley, OH 44233*

- Trained and led co-workers in the rental and retail department
- Provided efficient customer service interactions renting out watercraft

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- Monitored radar in times of severe weather to ensure safety on the lake

Volunteer Meteorologist, Scarlet & Gray Forecasting Team, Columbus, OH *August 2021 – Present*

- Produced 3-minute forecast segments for the meteorology social media page
- Designed my graphics using PowerPoint Slides, create evening, Day 2, and Day 3 future forecasts, and used a green screen for the forecast

CONFERENCE PRESENTATIONS

Shaffer M.N., **Porter S.**, Baltus D., Giovannucci A., and Beck J.K., (2024) *24-Hour Accuracy of Three Major Weather Prediction Models*, American Meteorological Society Annual Meeting, Baltimore, Maryland, Student Session on Operational and Local Meteorology

LEADERSHIP EXPERIENCES

Social Chair, Geography Graduate Organization *Autumn 2024 – Present*

- Attend executive board meetings to discuss social events within the Department of Geography
- Coordinate entertaining events for graduate students

Vice President, Meteorology Club *Spring 2023 – Spring 2024*

- Assisted in weekly executive board meetings planning out future events and workshops for undergraduate students
- Planned National Weather Service office visit to Wilmington, OH
- Assisted in organizing and arranging speakers for the 28th Annual Weather, Water, and Climate Symposium, which hosts roughly 300 meteorologists in attendance

Tutor, Algebra I *Autumn 2023 – Present*

- Developed lesson plans and teach Algebra 1 to students
- Assisted in answering and guiding students in extra mathematical practice

Vice President, Chi Epsilon Pi Honor Society, Columbus, OH *Spring 2023 – Spring 2024*

- Led and assisted in weekly meetings alongside the executive board
- Developed workshops and resume builders for undergraduate students in the Atmospheric Science program
- Assisted in developing social events for undergraduate Atmospheric Science students

Supervisor, The Ohio State University Ice Crew *Autumn 2022 – Spring 2024*

*(4 hours/week), (\$15/hour), Morgan Garner, (330) 414-1302
555 Borror Drive, Columbus, OH 43210*

- Maintained and cleaned the surface of the ice during media timeouts and intermissions at the Schottenstein Center (capacity of 8,000)
- Supervised 13 co-workers and train new employees prior to men's ice hockey games

Leader of North Campus, CRU Ohio State *Spring 2022 – Present*

- Led a group of 20 students in Bible Study and discipleship groups weekly

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- Cultivated young men towards success in school and mentored students towards their purpose in life

Volunteer Ministry, Columbus Dream Center

Autumn 2021 – Present

- Provided meals and supplies to the homeless in Columbus, Ohio
- Assisted in providing prayer and joyful hope to individuals on the streets of Columbus

President, Chick-Fil-A Leadership Team

Autumn 2020 – Autumn 2021

- Coordinated monthly meetings to plan community service outreach events at Cuyahoga Valley Christian Academy
- Assisted in compiling supplies for gift packages for military across the seas

ORGANIZATIONS

Geography Graduate Organization	<i>Autumn 2024-Present</i>
American Meteorological Society	<i>Autumn 2023 – Present</i>
Chi Epsilon Pi Honor Society	<i>Spring 2023 – Present</i>
Ohio State Intramural Hockey	<i>Autumn 2022 – Present</i>
The Ohio State University Athletics Ice Crew	<i>Autumn 2022 – Spring 2024</i>
Meteorology Club	<i>Autumn 2021 – Present</i>
Scarlet & Gray Forecasting Team	<i>Autumn 2021 – Present</i>
Geography Club	<i>Autumn 2021 – Spring 2024</i>
CRU Ohio State	<i>Autumn 2021 – Present</i>
Columbus Dream Center Volunteer Homeless Ministry	<i>Autumn 2021 – Present</i>

AWARDS AND CERTIFICATES

2023-2024 Taaffe Award	<i>The Ohio State University, Department of Geography</i>
▪ Highest honor in the department, exemplifies exceptional achievement in the classroom, with research efforts, and outstanding extracurricular pursuits	
2023-2024 Dr. Steven M. Quiring Student Leadership Award	<i>Chi Epsilon Pi Honor Society</i>
Autumn 2022 Dean's List	<i>The Ohio State University</i>
Spring 2023 Dean's List	<i>The Ohio State University</i>
Autumn 2023 Dean's List	<i>The Ohio State University</i>
Skywarn Trained Observer Certificate	<i>National Weather Service</i>
Ohio Boater's Education Certificate	<i>ODNR</i>
PSE Credit Union Scholarship Recipient	<i>PSE Credit Union</i>
High School Salutatorian	<i>Cuyahoga Valley Christian Academy</i>
High School STEM Honors Diploma	<i>Cuyahoga Valley Christian Academy</i>

TECHNICAL SKILLS

Microsoft: Word, Excel, and PowerPoint

GIS Software: ArcMap, ArcGIS Pro, and QGIS

Campbell Scientific Software: Loggernet

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Programming Language: Python

Radar: AWIPS

Media: Max Weather, Max Reality