

KYLE J GILLETT

Master's Student, Severe Storm Scientist, Meteorologist

Department of Atmospheric Sciences, University of North Dakota, Grand Forks, ND

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1 EDUCATION

M.S. , Atmospheric Science, University of North Dakota	In progress
B.S. , Meteorology, Minor Mathematics, Central Michigan University	May 2024

2 RESEARCH EXPERIENCE

Master's Thesis Research , University of North Dakota	In progress
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- **Title:** *"A Numerical Investigation into the Impacts of a Rear Flank Storm Interaction on Storm Behavior and Tornadogenesis"*
- **Committee:** Dr. Catherine Finley (Advisor), Dr. Bruce Lee, Dr. Cameron Nixon

Graduate Research Assistant , University of North Dakota	June-December 2025
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- **Project:** *"Using Aircraft Observations to Improve Tropical Cyclone Tornado Predictability Before Landfall"*
- **Committee:** Dr. Jacob Carstens (Advisor)

Undergraduate Research Assistant , Central Michigan University	April-August 2023
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- **Project:** *"Synoptic & Mesoscale Variability of US Large Hail Environments"*
- **Committee:** Dr. John Allen (Advisor), Dr. Cameron Nixon

3 PUBLICATIONS

3.1 PAPERS

- Gillett, K. J., 2025: SounderPy: An atmospheric sounding visualization and analysis tool for Python. *J. Open-Source Software*, 10 (112), 8087, <https://doi.org/10.21105/joss.08087>

4 PRESENTATIONS (* DENOTES STUDENT CO-AUTHOR)

4.1 POSTERS

- Belzer, B. W*, Gillett, K. J., Carstens, J., D., January 2026: **Convective Environments Preceding Landfall in Tornadic Tropical Cyclones: An Analysis of Airborne Observations**, 106th AMS Annual Meeting, Houston, TX, <https://doi.org/10.13140/RG.2.2.29219.11047>
- Gillett, K. J., March 2024: **SounderPy: A Sounding Visualization Tool for Severe-Weather Analysis and Forecasting**, 27th Annual Central Iowa National Weather Association Severe Storms and Doppler Radar Conference, Ames Iowa, <https://doi.org/10.13140/RG.2.2.15823.29600>

4.2 PRESENTATIONS

- Nixon, C., Gillett, K., Tang, J., Fowkes, H., February 2025: **Chase Archive: Introducing the biggest collection of storm chases on the web. For chasers, by Chasers.**, National Storm Chaser Summit.
- Gillett, K., May 2025: **A Simple Guide to Forecasting the Northern Lights: Auroral Substorms**, Seminar for Local Atmospheric Research, Grand Forks, ND.

4.3 OTHER INVITED TALKS

- **Space Weather Forecasting**, University of North Dakota, April 2025

5 SOFTWARE DEVELOPMENT AND DATA

SounderPy, Sole Developer

July 2023-present

- Open-Source Python software package for retrieving, analyzing, and visualizing observed, modeled, and reanalyzed atmospheric sounding data

MetPy, Contributor

August 2023

Kyle J. Gillett

Updated 27 January, 2026

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6 TEACHING EXPERIENCE

6.1 INSTRUCTOR OF RECORD

- ATSC-270 **Computer Concepts in Meteorology**, Spring 2026, UND

6.2 TEACHING ASSISTANT

- ATSC-411 **Advanced Synoptic Meteorology**, Fall 2025, UND
- ATSC-405 **Numerical Methods in Meteorology**, Fall 2025, UND
- ATSC-110 **Introduction to Meteorology Lab**, Fall 2025, UND
- ATSC-110 **Introduction to Meteorology Lab**, Spring 2025, UND
- ATSC-270 **Computer Concepts in Meteorology**, Spring 2025, UND
- ATSC-411 **Advanced Synoptic Meteorology**, Fall 2024, UND
- ATSC-405 **Numerical Methods in Meteorology**, Fall 2024, UND

7 LEADERSHIP EXPERIENCE

National Weather Service Liaison – University of North Dakota Atmospheric Science Graduate Student Association, May 2025-present

President – Central Michigan University Student Chapter of the American Meteorological Society, April 2023-May 2024

Webmaster – Central Michigan University Student Chapter of the American Meteorological Society. April 2020-April 2023

8 AWARDS & HONORS

Outstanding Graduate Teaching Assistant – University of North Dakota, College of Aerospace, Department of Atmospheric Science (2025)

Best Graduate Student Teaching Assistant – University of North Dakota Student Chapter of the American Meteorological Society (2025)

Department Service Award – Central Michigan University Department of Earth & Atmospheric Science (2024)

9 SERVICE & MEMBERSHIPS

Student Member – American Meteorological Society, January 2024-present

Member & Officer – UND Atmospheric Science Graduate Student Association, August 2024-present

SCALAR Conference Organizer – UND Atmospheric Science Graduate Student Association, May 2024-present

Committee Head – Map-wall Development, Osborne Weather Center Remodel, UND Department of Atmospheric Science, January 2025-present

Member & Officer – CMU Student Chapter of the American Meteorological Society, August 2018-May 2024

10 MENTORSHIP

Committee Member – Payton Belzer, Senior Undergraduate Project: *Entraining CAPE in Tropical Cyclones from Aircraft Reconnaissance Dropsondes* (with Jacob Carstens and Catherine Finley), University of North Dakota, 2025-2026

11 RELATED EXPERIENCE

Full Time On-Air Broadcast Meteorologist – WNEM TV5, GRAY-TV, Saginaw-MI, August 2022-August 2024

Freelance On-Air Broadcast Meteorologist – WLNS TV6, Nexstar Broadcasting, Lansing-MI, October 2020-August 2021

Intern, Storm Chaser – KSNB Local4, GRAY -TV, Hastings-NE, June 2022-August 2022

Intern – WLNS TV6, Nexstar Broadcasting, Lansing-MI, June 2019-August 2019

12 SKILLS

12.1 PROGRAMMING & DATA ANALYSIS

- Python (advanced)
- Linux/Unix/WSL (proficient)
- HTML/CSS (proficient)
- Cloud Model 1 (CM1), Weather Research & Forecast Model (WRF), (proficient)

- LaTeX (proficient)
- Shell Scripting (intermediate)
- VBA, MatLab, & FORTRAN (beginner)
- JSON, CSV, netCDF, GRIB, TXT

12.2 OTHER COMPUTER

- Microsoft Office
- Google Sheets/Drive etc.
- Windows, Linux
- Gibson Ridge
- IDV
- Zoom & WebEx
- Adobe Lightroom, Photoshop, Premiere

13 FEATURED IN

Synoptic Analysis and Forecasting: An Introductory Toolkit, 2nd Edition, Shawn Milrad, 2025.