Evan Gustafson

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EDUCATION

University of North Dakota, Grand Forks, ND *Aug 2026-Present*
M.S. in Atmospheric Sciences

Valparaiso University, Valparaiso, IN *May 2026*
B.S. in Meteorology

RESEARCH INTERESTS

My research interests include organized convective systems, mesoscale meteorology, high-impact weather, forecasting, and the application of machine learning algorithms.

RESEARCH & PROFESSIONAL EXPERIENCE

University of North Dakota Department of Atmospheric Sciences *Aug 2026-Present*
Graduate Teaching Assistant

- Preparing material, taught course concepts, and conducting multiple weekly lab sections for undergraduate students
- Supporting student success and engagement by completing grading in a timely manner, holding office hours, and fostering a collaborative learning environment
- Assisting with course planning, communicating updates, and clarified questions on course content

Valparaiso University Department of GME, Valparaiso University *Jan 2025-May 2026*
Undergraduate Research Assistant, Advisor: Leanne Blind-Doskocil

- Quantitatively examined how closely issued tornado emergencies (TOREs) followed the NWS's impact-based warning guidelines and qualitatively analyzed NWS forecasters' decisions to issue TOREs through structured interviews
- Analyzed radar signatures of TORE cases, including rotational velocities, using GR2Analyst
- Conducted ethical interviews and performed Phronetic Iterative Qualitative Data Analysis (PIQDA)

FIELD EXPERIENCE

Convective Field Study 2025, Valparaiso University *May 2025*
Team Lead/Driver

- Guided forecast discussions for severe weather development for 11 days across the Great Plains
- Cultivated an inclusive learning environment for my peers in my vehicle
- Launched weather balloons on severe weather days to provide data to local NWS offices

AR Recon University Coordinated Radiosonde Program, Valparaiso University *Jan-Feb 2025*

- Coordinated with atmospheric river reconnaissance flights on the West Coast to research how atmospheric rivers evolve across the CONUS
- Launched weather balloons from campus at specific time intervals in coordination with other locations

Convective Field Study 2024, Valparaiso University *May 2024*

Lead Navigator

- Led caravan navigation during a severe weather event, maintaining situational awareness of road networks and escape routes
- Made real-time decisions that balanced optimal storm viewing and safety in high-stress environments

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PUBLICATIONS

Wolff, E. C., J. S. Goodnight, L. Blind-Doskocil, E. M. Conklin, **E. T. Gustafson**, J. E. Trujillo-Falcón, 2026: Reflecting on a Decade of Formalized Tornado Emergencies. *Bull. Amer. Meteor. Soc.*, 107, E1837-E1853, *https://doi.org/10.1175/BAMS-D-25-0245.1*

EXTRACURRICULAR ACTIVITIES

Valparaiso University Chapel of the Resurrection, Valparaiso University *Sep 2025-May 2026*

Celebrate Technical Manager

- Supervise and manage sound technicians throughout the week to orchestrate and produce sound and streaming for a contemporary worship night, “Celebrate!”
- Problem-solved and communicated sound issues in a fast-paced and high-stress environment to produce a high-quality service

Valparaiso University Storm Intercept Team, Valparaiso University *Aug 2025-May 2026*

Deputy Director

- Co-lead student-driven field deployments during active severe weather days while encouraging collaboration and communication
- Coordinate logistics, forecast briefings, and assess whether deployments are feasible and safe
- Plan and develop tornado case studies for the department

Valparaiso University Television, Valparaiso University *Sep 2022-May 2026*

News/Weather Assistant

- Create weather updates by developing graphics, audio, and authentic forecasts
- Present weather information clearly, concisely, and engagingly to promote preparedness

Sigma Phi Epsilon Indiana Zeta Chapter, Valparaiso University

Sigma/Phi Coordinator

- Fostered professional and personal growth for chapter members through resume workshops, goal-setting discussions, and leadership opportunities on and off campus

Vice President of Programming, Dec 2023 - Dec 2024

- Organized, delegated, and executed chapter social events, service projects, and its primary philanthropy, *SigEp Splash*, which raised a record $4,600 for a local, low-cost daycare, Hilltop Neighborhood House

- Effectively communicated and collaborated with other executive board members and advisors to coordinate logistics for events to ensure events are disseminated promptly to the chapter
- Oversaw risk management duties at social gatherings through resolving interpersonal conflicts to maintain a safe and inclusive environment

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TECHNICAL SKILLS AND TRAINING

Programming Languages: Python (proficient, beginner in machine learning), Java (beginner)
Software Experience: GR2Analyst, ArcGIS Pro, MAXQDA Analytics Pro
Certifications: CITI Ethics Training

PROFESSIONAL MEMBERSHIPS

American Meteorological Society *Aug 2022-Present*

HONORS AND AWARDS

Symposium on Research and Creative Expression 1st Place Undergrad Poster/Interactive Presentation Apr 2026
Member of Chi Epsilon Pi - Valparaiso University Department of Meteorology Chapter *Mar 2026*
Guild Undergraduate Creative Work and Research Expense Grant *Dec 2025*
Chi Epsilon Pi American Meteorological Society Travel Grant *Oct 2025*
Dean's List Spring 2023 *May 2023*
Dean's List Fall 2022 *Dec 2022*
Presidential Scholarship *Each undergraduate year*
Martin Luther Award *Each undergraduate year*
Go Valpo Grant *Each undergraduate year*
Lutheran Heritage Award *Each undergraduate year*

SERVICE

Hilltop Neighborhood House: Working in the food pantry and soup kitchen for a low-cost daycare *Jan 2023-May 2026*
Meteorology Field Day: Volunteered to work at weather stations for elementary students *Apr 2022-Apr 2026*
Sigma Phi Epsilon Indiana Zeta Spring Break Service Trip: Cleaned riverbanks, homes, and food pantries *March 2026*
Dream Big Balloon Launch: Assisted with a giant weather balloon launch for elementary students *March 2024*