

Anthony L. Williams

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Education

Auburn University, Auburn, AL Aug 2024 – Present
Earth System Science Ph.D. (Expected: May 2028)
Research Concentration: TBD

Millersville University, Millersville, PA May 2024
Integrated Scientific Applications M.S.
Concentration: Weather Intelligence and Risk Management

Graduate Certificate: Space Weather and
Environment: Science, Policy, and Communication

St. Cloud State University, Saint Cloud, MN May 2021
Meteorology B.S.

Related Professional Experience

Graduate Teaching Assistant Aug. 2024 – Present
Department of Geosciences
Auburn University, Auburn AL

- Responsible for delivering lab lectures, grading assignments, and providing instructional support during lab sessions.

Grant Proposal Writer (Contract) June 2024 – Aug. 2024
University of Minnesota - Extension
Regional Sustainable Development Partnerships

- Applying expertise in space weather and advanced writing skills to develop a targeted grant proposal.
- Conducting detailed research on space weather impacts to support the proposal.
- Responsible for communicating complex scientific concepts to meet specific funding criteria.
- Collaborating with stakeholders to gather necessary data and ensure the proposal's accuracy and relevance.
- Managing project schedule and ensuring adherence to strict deadlines.

Graduate Assistant Aug. 2022 – May 2024
Center for Disaster Research and Education (CDRE)

M.S. Emergency Management / M.S. Integrated Scientific Applications programs
Millersville University, Millersville, PA

- Conducted interdisciplinary quantitative research on space weather science, effectively communicating findings at research colloquiums and professional conferences.
- Led diverse projects including recruitment for a space weather program, coordination of social media campaigns, crafting of scientific writing for professional engagements, and conducting research data analysis.
- Collaborated with faculty and professionals across disciplines to develop emergency operation plans, emphasizing concise technical writing and effective dissemination of complex information.
- Partnered with emergency management and public health professionals on outreach initiatives to advocate for community-focused weather hazard safety and space weather education.

Grant Research Assistant

Sep. 2022 – May 2023

Millersville University, Millersville, PA

- Collaborated with STEM professors on NSF's NOYCE grant projects, emphasizing the value of interdisciplinary teamwork in fostering effective professional collaboration.
- Designed, administered, and analyzed research surveys for science education undergraduates. Disseminated results to team of interdisciplinary scientists.
- Led focus group interviews with STEM undergraduates, analyzed results, and presented findings to the research team.
- Contributed to planning discussions and activities during meetings with the Principal Investigator (PI) and Co-PIs.
- Contributed to technical writing and editing of research white papers.

Teaching and Learning Assistant

Aug. 2018 – May 2021

Saint Cloud State University, Saint Cloud, MN

- Engaged in teaching diverse meteorology topics including radar meteorology, numerical weather prediction, and earth science communication, fostering communication and educational skills development.
- Collaborated with faculty to create course materials and activities, emphasizing teamwork crucial for interdisciplinary environments.
- Participated in course planning and execution, enhancing organizational and leadership abilities.
- Participated in extensive science and climate educational outreach, driven by a interest in science communication and community engagement.

Co - Owner / Operator

Jan. 2008 – Aug 2018

ABC Auto Body

Saint Paul, MN

- Coordinated logistics for business operations and related projects, including materials, finances, and scheduling.
 - Managed insurance claims, facilitating communication between agencies and clients.
 - Supported clients in understanding insurance policies, procedures, and automotive repair processes.
 - Performed automotive repairs, including body work, painting, finishing, and related tasks.
 - Developed and improved business relationships, enhancing the company's network and reputation.
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Teaching Experience

Laboratory Teaching Assistant

Fall 2024

Department of Geosciences

Auburn University, Auburn, AL

Courses:

- Global Systems I – Weather and Climate (GEOG -1020)
- Concepts of Science (SCMH-1010)

Teaching Assistant

Spring 2024

Department of Earth Sciences

Millersville University, Millersville, PA

Course:

- Radar Meteorology: w/lab (ESCI 449)

Teaching Assistant

Summer / Winter 2023

Department of Earth Sciences

Millersville University, Millersville, PA

Course:

- The Atmosphere: w/lab (ESCI 109)

Learning Assistant

Aug. – Dec. 2020

Department of Atmospheric and Hydrologic Sciences

St Cloud State University, St. Cloud, MN

Course:

- Introductory Meteorology (AHS 260)

Teaching Assistant

Jan. 2019 – May 2021

Department of Computer Science and Information Technology
St. Cloud State University, St. Cloud, MN

Course:

- Introduction to Linux (CNA 267)

Teaching Assistant

Aug. 2018 – May 2021

Department of Atmospheric and Hydrologic Sciences
St. Cloud State University, St. Cloud, MN

Courses:

- Numerical Weather Prediction (AHS 467) Spring 2021
- Introductory Meteorology (AHS 260) Spring 2021
- Radar and Satellite Meteorology (AHS 368), Fall 2018 - 2019
- Introduction to Atmospheric Sciences (AHS 104), Fall 2018

Professional Organization Affiliations

2018 – Present American Meteorological Society (AMS)

2023 - Present AMS Committee on Measurements

AMS Space Weather STAC – Student Liaison

Student Organizations

2020 – 2021 **Vice President**, American Meteorological Society (AMS) Student Chapter, St. Cloud State University

2019 – 2020 **Secretary**, American Meteorological Society (AMS) Student Chapter, St. Cloud State University

Presentation/Outreach Experience

2024 **Poster Presentation**, “Quantitative analysis of cosmic ray flux and the potential impact on human health over multiple solar cycles.”
NOAA Space Weather Workshop. Boulder, CO

- 2023 **Poster Presentation**, “Heliobiology: Making Connections Between Space Weather and Human Health”. Discuss research with NOAA scientists and other professionals at conference.
NOAA Space Weather Workshop. Boulder, CO
- Poster Presentation**, “Heliobiology: Making Connections Between Space Weather and Human Health” Discuss research with faculty of university as well as HAM Radio professionals and amateurs.
HamSCI Workshop. University of Scranton, Scranton, PA
- 2022 **Professional Presenter**, led discussion at once yearly “Emergency Preparedness Day” event on campus. Educated attendees on the importance of emergency planning and instructed the use of emergency materials supplied to audience.
Millersville University, Millersville, PA
- 2020 **Professional Presenter**, developed PowerPoint slides and led discussion of climate change and hosted a once yearly Q & A session on meteorology with residents of a local senior center.
Whitney Senior Center, St. Cloud, MN
- 2019 **Workshop Presenter**, led American Association of University Women’s Tech Savvy workshop for girls in 5-9th grade studying STEM fields.
Presentation utilized the Hydrology Lab’s stream table to demonstrate the processes of erosion and dam building.
Saint Cloud State University, Saint Cloud, MN
- Professional Presenter**, participated in discussion at local senior center about severe weather safety and hosted a Q & A on meteorology.
Whitney Senior Center, St. Cloud, MN
- Workshop Presenter**, chaired booth while presenting severe weather safety tips to visitors at annual Child Safety Fair.
Minnesota University of Health, Maple Grove, MN
- Subcommittee Member**, helped plan the AMS Student Chapter yearly club trip to the National American Meteorological Society Conference.
- 2018 **Job Shadow and Professional Presentation**, worked alongside a Hennepin County Emergency Management meteorologist, then delivered presentation about the Hennepin West Mesonet network to a joint meeting of the Twin Cities Meteorological Society and the AMS Student Chapter
St. Cloud State University, Plymouth, MN

Conferences Attended

- 2024 **American Meteorological Society Annual Meeting**
January – Baltimore, MD
- 2023 **NOAA Space Weather Workshop**
April – Boulder, CO
- AMS Washington Forum**
April, Washington DC
- HamSci Workshop**
March – Scranton, PA
- American Meteorological Society Annual Meeting**
January – Denver, CO
- 2021 **American Meteorological Society Annual Meeting**
January – Boston, MA
- 2020 **Northern Plains Weather Workshop**
October, Saint Cloud, MN
- American Meteorological Society Annual Meeting**
January – Phoenix, AZ
- 2019 **Northern Plains Weather Workshop**
November, Saint Cloud, MN

Publications

- Taylor, C. E.,** Marcum-Dietrich, N., Ramos-Sepulveda, L., Washington, T., Yalda, S., & Williams, A. (2023). Building capacity to identify and address the needs and challenges of STEM education majors [White paper].