

ADAM DEITSCH

PhD Candidate

University at Albany Atmospheric Sciences Research Center
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Albany, NY 12226

EDUCATION

PhD, University at Albany

Atmospheric Science

Graduate Advisor: Dr. Sara Lance

Expected May 2027

Albany, NY

BS, Broward College

Environmental Science (Physical Science Specialization)

magna cum laude

Undergraduate Advisor: Dr. David Serrano

May 2021

Davie, FL

RESEARCH AND TEACHING INTERESTS

- Atmospheric Aerosols
- Atmospheric Chemistry
- Air Quality
- Persistent Pollutants (e.g., Microplastics and PFAS)
- Measurements, Transportation, Deposition

RESEARCH EXPERIENCE

Instrumentation:

- Aerodyne
 - High-Resolution Time-of-Flight Aerosol Mass Spectrometer
- TSI
 - Electrostatic Classifier
 - Differential Mobility Analyzer
 - Condensation Particle Counter
 - Constant Output Atomizer

Modeling and Analytical Software:

- HYSPLIT
- IGOR Pro
- TSI Aerosol Instrument Manager

Coding Environments and Systems:

- GitHub
- HTML
- LaTeX
- Python
- R

The Research Foundation for the State University of New York (SUNY RF)

Research Project Assistant

May 2026–August 2026

Collected and evaluated aerosol mass spectrometry data from indoor and outdoor air for persistent pollutants from varying emission sources under Drs. Sara Lance and Jie Zhang.

NOAA Cooperative Science Center in Atmospheric Sciences and Meteorology (NCAS-M)

NCAS-M Graduate Fellow

August 2021–August 2025

Designed and implemented experiments to attempt quantification of micro/nanoplastic and PFAS aerosols in indoor and outdoor air samples using high-resolution aerosol mass spectrometry.

The Research Foundation for the State University of New York (SUNY RF)

Research Project Assistant

August 2021–March 2023

Assisted in research at the UAlbany Atmospheric Sciences Research Center, including designing and running laboratory experiments to investigate atmospheric micro- and nanoplastics measurement techniques, under the supervision of Drs. Sara Lance and Christopher Thorncroft.

National Oceanic and Atmospheric Administration (NOAA)

Graduate Student Intern

May 2022–August 2022

This internship included working with the NOAA Global Monitoring Laboratory and the NOAA Federated Aerosol Network to better understand atmospheric loading of microplastic and nanoplastic particulate matter through filter-based measurements. Mentors were Drs. Elisabeth Andrews and Patricia K. Quinn.

TEACHING EXPERIENCE

AATM327 / AENV327—Meteorological and Environmental Measurement

Graduate Teaching Assistant

January 2026–May 2026

Assisted with laboratory setup and execution, as well as assignment and final project grading during Dr. Sarah Child's practical measurements course at the University at Albany.

Guest Lecturer

2 March 2026

Lectured for Dr. Sarah Child's practical measurements course on air quality measurements, instrumentation, and parameterization.

AENV221—Understanding the Earth

Graduate Teaching Assistant

August 2025–December 2025

Assisted with laboratory setup and execution, as well as assignment and exam grading during Dr. Aubrey Hillman's introductory Geology course at the University at Albany.

Substitute Lecturer

3 November 2025

Lectured for Dr. Hillman's introductory Geology course on the topics in the chapter covering geologic structures, crustal deformation, and mountain building.

AATM107—The Oceans

Substitute Lecturer

12 October 2023

Lectured for Dr. William Roberts's introductory Oceanography course, covering topics in the chapter on coasts, beaches, and estuaries in the University at Albany Fall 2023 semester.

PEER-REVIEWED PUBLICATIONS

Deitsch, A. M., Orsini, D., Zhang, J., Tripathy, A., & Lance, S. M. (**In Preparation**). Ejection of nanoplastic aerosols from open-cell foam upholstery during normal use.

Deitsch, A. M., Lawrence, C. E., Casson, P., McKim, S., Lance, S. M., Shafer, M. M., Offenber, J., & Puchalski, M. A. (**Under Internal Review at the US EPA**). Per- and Polyfluoroalkyl Substances (PFAS) Measured in Cloud Water and Precipitation Samples Collected at a Remote Mountaintop Site in the Adirondacks. *Environ. Sci. Technol. Lett.*

CONFERENCE PRESENTATIONS

* Indicates Presenter

***Deitsch, A. M.**, Orsini, D., Zhang, J., Tripathy, A., & Lance, S.M. (16 October 2025). Measuring Atmospheric Plastic and PFAS Nanoparticles with the High-Resolution Time-of-Flight Aerosol Mass Spectrometer. [Poster Presentation]. *American Association for Aerosol Research 43rd Annual Conference*, Buffalo, NY. https://www.aaarabstracts.com/2025/view_abstract.php?pid=537

***Deitsch, A. M.**, Zhang, J., Catena, A. Schwab, M. J., Schwab, J. J., & Lance, S. M. (13 January 2025). Leveraging the High-Resolution Time-of-Flight Aerosol Mass Spectrometer to Measure PFAS Aerosols. [Oral Presentation]. *American Meteorological Society 105th Annual Meeting, 27th Conference on Atmospheric Chemistry*, New Orleans, LA. <https://ams.confex.com/ams/105ANNUAL/meetingapp.cgi/Paper/456696>

***Deitsch, A. M.**, Lawrence, C. E., Casson, P., Lance, S. M., Shafer, M. M., Offenber, J. H., & Puchalski, M. A. (31 January 2024). Per- and Polyfluoroalkyl Substances (PFAS) in Cloud Water and Precipitation Samples from Whiteface Mountain, NY. [Poster Presentation]. *American Meteorological Society 104th Annual Meeting, 26th Conference on Atmospheric Chemistry*, Baltimore, MD. <https://ams.confex.com/ams/104ANNUAL/meetingapp.cgi/Paper/439242>

***Deitsch, A. M.**, Lawrence, C. E., Casson, P., Lance, S. M., Shafer, M. M., Offenberg, J. H., & Puchalski, M. A. (26 October 2023). A Comparison of Persistent Pollutant Concentrations in Cloud Water and Precipitation Collected in the Adirondack Mountains. [Oral Presentation]. *National Atmospheric Deposition Program Fall Meeting and Scientific Symposium, Advances in Measurements of Atmospheric Pollution – Part 1*, Madison, WI. https://nadp.slh.wisc.edu/conf/2023/S4_05_Deitsch.html

*Offenberg, J. H., Lance, S., **Deitsch, A.**, Lawrence, C., Casson, P., Puchalski, M., & Shafer, M. (17 November 2022) Initial Evaluation of Cloud Water Content of Per- and Polyfluorinated Compounds in Archived Samples from Whiteface Mountain, NY. [Oral Presentation]. *National Atmospheric Deposition Program Fall Meeting and Scientific Symposium, Tracking Emerging Pollutants and Climate Change Indicators*, Knoxville, TN. https://nadp.slh.wisc.edu/wp-content/uploads/2022/11/NADP_pro_2022.pdf#page=55

***Deitsch, A. M.**, Zhang, J., Vldar, A., Andrews, E., Quinn, P. K., & Lance, S. M. (9 January 2022). Assessing filter-based measurements for evidence of atmospheric micro- and nano- plastic (MNP) particulate matter through laboratory analysis. [Poster Presentation]. *American Meteorological Society 103rd Annual Meeting: 14th Conference on Environment and Health*, Denver, CO. <https://ams.confex.com/ams/103ANNUAL/meetingapp.cgi/Paper/417589>

***Deitsch, A.** (22 April 2021). Paxton series: the state soil of Massachusetts. [Poster Presentation]. *Broward College 2021 Student Research Symposium: Environmental Science*, Davie, FL. <https://purl.flvc.org/broward/fd/BC3351>

***Deitsch, A.** (15 June 2020). Determining the extent of saltwater influence on groundwater in Dr. Von D. Mizell-Eula State Park. [Poster Presentation]. *Broward College 2020 Student Research Symposium: Environmental Science*, Davie, FL. <https://purl.flvc.org/broward/fd/BC747>

HONORS AND AWARDS

American Association for Aerosol Research

Student Poster Competition Winner
43rd Annual Conference

October 2025

American Meteorological Society

Best Student Poster Presentation
14th Conference on Environmental Health

February 2023

NCAS-M II Graduate Fellowship

Agreement #NA22SEC4810015
Cohort 1

2023–2025

NCAS-M Graduate Fellowship

Agreement #NA16SEC4810006
Cohort 5

2021–2023

National Science Foundation

Award #1564652
s-STEM “STRIDES” Scholarship

2019–2021

OUTREACH AND SERVICE

YouTube Science Communicator

Producer, Lecturer

May 2024–Present

Goal: Produce content showcasing my work, explaining scientific concepts, and clearing up misconceptions around general earth science topics.

<https://youtube.com/@PhDeitsch>

Albany City School District Middle School Science Fair

Judge

May 2026

Goal: Encourage and evaluate students as they promote and showcase their STEM projects from middle schools in the Albany City School District.

Adirondack Day Showcase*Exhibitor**April 2026*

Goal: Showcase the economic diversity related to the Adirondacks, including the science conducted at Whiteface Mountain, while interacting with government representatives and the public.

<https://www.roostadk.com/news/2026/annual-adirondack-day-albany-showcases-adirondack-region-business-and-economic-activity>

ASRC Research Facilitator Search Committee*Committee Member**May 2024–May 2025*

Goal: Evaluate applicants and materials, and conduct interviews for potential hiring of a new research facilitator for the UAlbany Atmospheric Sciences Research Center.

Forest Preserve Summit*Exhibitor**September 2024*

Goal: Discuss New York State Budget for conservation, protection and sustainability in the Catskills and Adirondack Forest Preserves with regard to community engagement, conservation, education, recreation, and research in these environmental regions to ensure their protection and sustainability.

UAlbany Weather, Climate & Chemistry Camp*Counselor, Lecturer, Mentor**August 2022; 2023; 2024*

Goal: Expose local students to career opportunities, applying for funding, and going to college, as well as providing hands-on experiences and presentations on weather, climate, and atmospheric chemistry.

<https://www.atmos.albany.edu/facstaff/jminder/UAWCcamp/>

Falconer Lecture Series*Lecturer**July 2024*

Goal: Connect with community members and stewards about our ongoing research in the local area.

[https://whiteface.asrc.albany.edu/documents/ASRC Falconer Lecture Series Summer 2024.pdf](https://whiteface.asrc.albany.edu/documents/ASRC_Falconer_Lecture_Series_Summer_2024.pdf)

Adirondack Day Showcase*Exhibitor**May 2024*

Goal: Showcase the economic diversity related to the Adirondacks, including the science conducted at Whiteface Mountain, while interacting with government representatives and the public.

<https://www.adirondackalmanack.com/2024/05/adirondack-day-presents-adirondack-region-information-to-state-lawmaker.html>

GEMS Mentorship Program*Mentor**September 2023–May 2024*

Goal: Increase accessibility of graduate programs and funding by providing mentorship for undergraduate and early-stage graduate students.

<https://gems-program.org/>

LICENSES AND CERTIFICATIONS

NASA Transform to Open Science

Open Science Certification

*December 2023***Climate Reality Project**

Certified Climate Reality Leader

*September 2020***CLEO Institute**

Certified Climate Speaker

*March 2020***PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS**

American Association for Aerosol Research*Registered Member**May 2025–Present***International Association for Urban Climate***Registered Member**April 2023–Present*

American Meteorological Society
Graduate Student Member

August 2022–Present

Florida Climate Institute
Affiliate Member

August 2019–Present

RELEVANT COURSEWORK

Biological Sciences

Biology (BSC2010, BSC2010L, BSC2011, BSC2011L); Ecology (PCB4043); Entomology (ENY3005, ENY3005L)

Chemistry

Atmospheric Chemistry (AATM507); General Chemistry (CHM1040, CHM1041, CHM1041L, CHM1046, CHM1046L)

Computer Programming

Data Analysis in Atmospheric & Environmental Sciences (AATM561), Geographical Information Systems (GIS1040C, GIS1042C), Geophysical Data Analysis & Visualization (AATM533)

Geological Sciences

Atmospheric Dynamics (AATM500), Boundary Layer Processes of Urban Environments (AATM629), Coastal Marine Science (GLY4731); Earth Science (ESC1000, ESC1000L); Environmental Geology (GLY4203); Global Environmental Change (GLY4746); Hydrogeology (GLY4820, GLY4820L); Oceanography (OCE3008); Soil Science (SWS3006); Weather, Climate Change, and Societal Impacts (AATM543)

Mathematics

College Algebra (MAC1105); Pre-Calculus Algebra (MAC1140), Calculus & Analytical Geometry (MAC2311, MAC2312); Statistics (STA2023, PCB4454C); Trigonometry (MAC1114)

Physics

Aerosol Physics (AATM515), Atmospheric Physics (AATM504, AATM505); General Physics with Calculus (PHY2048, PHY2048L, PHY2049, PHY2049L)

Scientific Writing

Science Communication (BSC4826)

REFERENCES

Available Upon Request