

Sarah Y. Murphy

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EDUCATION

- *Ph.D. Engineering Science* August 2015 - December 2022 (Expected)
Voiland College of Engineering and Architecture
Washington State University, Pullman, WA
- *Bachelor of Science, Atmospheric Science* August 2010 – May 2015
Career Tracks: Graduate School Preparation, Climate Change, and Private Industry
Minors: Mathematics and Physics
Lyndon State College, Lyndonville, VT

EXPERIENCE

- Research Assistant September 2015 – Present
Washington State University
 - Working with data collected during the Norwegian Young Sea Ice (N-ICE) experiment to examine the surface energy balance over newly formed sea ice
 - Traveled to Summit Station, Greenland to complete instrument testing and calibrations
- DOE Office of Science Graduate Research Student Program Awardee January 2021 - June 2021
Pacific Northwest National Laboratory, Richland, WA
 - Worked virtually with scientists at the lab to conduct idealized modeling experiments using the Weather Research and Forecasting model.
- Teaching Assistant September 2017 – May 2018
Washington State University
 - Helped to lead students working with atmospheric and water chemistry instruments in lab work in the Environmental Measurements course
 - Co-taught Engineering Ethics course
 - Provided both teaching and student support for Environmental Measurements, Engineering Ethics, and Intro to Environmental Engineering
- Plains Elevated Convection at Night (PECAN) Project Participant Summer 2015
The Center for Severe Weather Research
 - Worked on a mobile mesonet team in placing pods, launching radiosondes, and driving mesonet truck
 - Operated and drove the Doppler On Wheels radar
- Research Assistant 2014 – 2015
Vermont Low Income Trust for Electricity at Lyndon State College
 - Examined the impact of climate change on solar energy production in the Caledonia County, Vermont
- Research Experience for Undergraduate Summer Intern Summer 2014
Colorado State University CHILL Radar Research Group
 - Conducted a case study on a supercell in Denver, Colorado on May 21, 2014 to display the capabilities of the FRONT network in northern Colorado
- Supplemental Instructor 2013 – 2014
Lyndon State College
 - Tutored and organized study sessions for students taking Survey of Meteorology II, Climate Science, Statistics courses, and in the use of MATLAB

- Tutor 2012 – 2014
Lyndon State College
 - Provided one-on-one and group tutoring to students in atmospheric science, mathematics, physics, oceanography, and writing courses.
- Research Assistant Summer 2013
Lyndon State College
 - Studied climate change's impact on the tree line on Mount Washington, New Hampshire

PUBLICATIONS

- Walden, V. P., S. R. Hudson, L. Cohen, **S. Y. Murphy**, and M. A. Granskog (2017), Atmospheric components of the surface energy budget over young sea ice: Results from the N-ICE2015 campaign, *J. Geophys. Res. Atmos.*, 122, 8427–8446, doi:10.1002/2016JD026091.
- Hanrahan, Janel, Maynard, Alex, **Murphy, Sarah Y.**, Zercher, Colton, Fitzpatrick, Allison (2017). Examining the Climatology of Shortwave Radiation in the Northeastern United States. *Journal of Applied Meteorology and Climatology*. 56. 10.1175/JAMC-D-16-0420.1.
- Walden, V. P., **Murphy, S.**, Hudson, S. R., & Cohen, L. (2017). N-ICE2015 atmospheric turbulent fluxes [Data set]. Norwegian Polar Institute. <https://doi.org/10.21334/npolar.2017.298013b7>

COMMUNITY INVOLVEMENT

- Data and Software Carpentry Certified Instructor 2018 – Present
Instructed and assisted in organization and student engagement during several Data and Software carpentry workshops at Washington State University. Primary instructor focus in Python programming but also involved with unix and other episodes.
- Washington State University Python Working Group Organizer 2021 - 2022
Organized and led weekly meetings of the Washington State University Python Working Group during the 2021-2022 school year. Presented several introductory and higher-level talks and tutorials.
- Whitman County Humane Society Volunteer 2018 – 2019
Cleaned, provided care for, and socialized cats, dogs, and exotic animals. Fostered and socialized stray cats as they were prepared for adoption.
- Co-Coordinator of the Lyndon State College Weather Balloon Launch Team 2013 – 2015
Collected data from balloon launches using Vaisala DigiCORA sounding system and lead a group of students in launching weather balloons
- Historian - Lyndon State College Student Chapter of the American Meteorological Society and National Weather Association 2012 – 2015
Kept track of the history of the chapter and assisted in planning the 38th, 39th, and 40th annual Northeastern Storm Conference
- Lyndon State College Student Ambassador 2014 – 2015
Gave tours to perspective students and helped to run admissions events on campus
- Panelist at Women in Science and Technology Conference April 2014
Spoke to young women at White Mountain Community College about pursuing a career in the sciences
- Lyndon State College Student Government Association Elected Class Representative 2013 – 2015
Represented the class of 2015 in the Lyndon State College student government by voting on issues concerning the student body
- Lyndon State College Weather Camp Student Volunteer August 2013
Assisted in the organization and in running a weather camp for students in 7th – 9th grades

MEMBERSHIPS

American Meteorological Society	2013 – Present
American Geophysical Union	2014 – Present
Association of Polar Early Career Scientists	2016 – Present

AWARDS AND DISTINCTIONS

• Washington State University David E. Harsch Memorial Award	May 2022
• DOE Office of Science Graduate Research Student Program Awardee	May 2020
• Washington State University Andy Studebaker Scholarship	December 2018
• Washington State University Paul A. Weir Scholarship	May 2017
• Washington State University David E. Harsch Memorial Award	May 2016
• First Place Poster Presenter in Joint EIPT&R2O Conference Student Competition at the 95th AMS 2015 Annual Meeting for “Observational Capabilities of the FRONT Network: 21 May 2014 Case”	January 2015
• Lyndon State College Alumni Scholarship Endowment	2014 – 2015
• Lyndon State College Faculty and Staff Scholarship Endowment Fund Recipient	2014 – 2015