

# Sarah Y. Murphy

| (207) 240-7190 | sarahyvettemurphy@gmail.com | [sarahymurphy.github.io](https://sarahymurphy.github.io) |

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## EDUCATION

### Ph.D. Engineering Science

August 2015 – April 2023

*Voiland College of Engineering and Architecture,  
Washington State University, Pullman, WA*

### Bachelor of Science, Atmospheric Science

August 2010 – May 2015

*Vermont State University, Lyndonville, VT*

*(Previously known as Northern Vermont University at  
Lyndon and Lyndon State College)*

Minors: Mathematics and Calculus-Based Physics

## SKILLS

- Python
- MATLAB
- HPC systems including:
  - Amazon Web Services
  - Microsoft Azure
- Atmospheric modeling with the Weather Research and Forecasting Model
- GitHub and GitHub sites
- Workshop instruction

## EXPERIENCE

### Physical Scientist

*US Geological Survey New England Water Science Center, Hartford, CT*

May 2023

– Present

- Python programming and modeling for HydroRisk and 3DHP projects

### Virtual Conference Specialist and Editor

*The Conference Exchange, Cumberland, RI*

October 2023

– Present

- Provide technical support for the virtual aspect of scientific and professional conferences
- Edit recordings of conferences sessions for client websites
- Train conference organizers on the Confex Meeting Application and Zoom

### Research Assistant

*Washington State University, Pullman, WA*

September 2015

– April 2023

- Worked 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

*Pacific Northwest National Laboratory, Richland, WA*

January 2021

– June 2021

- Worked virtually with scientists at the lab to conduct idealized modeling experiments using the Weather Research and Forecasting model.

### Teaching Assistant

*Washington State University, Pullman, WA*

September 2017

– May 2018

- 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

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## Plains Elevated Convection at Night (PECAN) Project Participant

Summer 2015

*The Center for Severe Weather Research, Boulder, CO*

- 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, Lyndon, VT*

- Examined the impact of climate change on solar energy production in the Caledonia County, Vermont

## 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>

## MEMBERSHIPS

American Meteorological Society

2013 – Present

American Geophysical Union

2014 – Present

Association of Polar Early Career Scientists

2016 – Present

## 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.

## AWARDS AND DISTINCTIONS

- Washington State University David E. Harsch Memorial Award May 2022
- DOE Office of Science Graduate Research Student Program Awardee May 2020

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- 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