**Annareli Morales, PhD**

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**Education**

Doctor of Philosophy in Atmospheric, Oceanic, and Space Sciences 2019

*University of Michigan – Ann Arbor*

Master of Science in Atmospheric Science 2014 *Colorado State University*

Bachelor of Science in Atmospheric Science and Geology, 2012

Concentration in Earth and Environmental Sciences

*University of Illinois at Urbana-Champaign*

**Employment and Appointments**

Environmental Health Specialist, WCDPHE 2023-Present

Research Scientist I, NOAA Physical Sciences Lab, CIRES 2021-2023

Postdoctoral Fellow*,* Advanced Study Program, NCAR 2019-2021

Graduate Student Research Assistant, University of Michigan2014-2019

Graduate Research Assistant, Colorado State University2012-2014

Student Research Intern, UCAR SOARS Program 2011, 2012
Senior Capstone Project, Department of Atmospheric Sciences, Univ. of Illinois 2011

**Peer-Reviewed Publications**

Student authors are underlined

1. Morales, A., M. J. Molina, J. Trujillo Falcón, and co-authors, 2023: Commitment to Active Allyship is Required to Address the Lack of Hispanic and Latinx Representation in Atmospheric Science. *Bull. Amer. Met. Soc.*, Accepted.
2. Morales, A.,L. Medina Luna, D. Zietlow, and J. LeBeau, 2022: Engaging an Adult Spanish-Speaking Hispanic and Latinx Audience: Testing the Impact of Communication Styles on Inclusion, Accessibility, Learning, and Interest. *Journal of Geoscience Education*, <https://doi.org/10.1080/10899995.2022.2120701>
3. Villalobos, E., J. Flores, M. Castro, A. Morales, K. Mosquera, W. Lavado, and F. Silva, 2022: Summertime precipitation extremes and the influence of atmospheric flows on the western slopes of the southern Andes of Peru. *International Journal of Climatology*, 1-22. <https://doi.org/10.1002/joc.7871>
4. Fox, K. R., B. D. McNoldy, A. Morales, and D. S. Nolan, 2022: Sensitivity of surface rainfall in landfalling Hurricane Florence (2018) to sub-kilometer grid spacing and microphysics parameterizations*. Mon. Wea. Rev*., Manuscript resubmitted.
5. Rudisill, W. J., A. N. Flores, E. Sirilla-Woodburn, D. Feldman, A Rhoades, Z. Xu, andA. Morales, 2022: Orographic precipitation sensitivity to microphysical parameterizations: Hydrologic evaluations with snow lidar datasets. In preparation.
6. Morales, A.,D. J. Posselt, H. Morrison, 2021: Which combinations of environmental conditions and microphysical parameter values produce a given orographic precipitation distribution? *J. Atmos. Sci.,***78**(2), 619-638. <https://doi.org/10.1175/JAS-D-20-0142.1>
7. Morales, A.,D. J. Posselt, H. Morrison, F. He, 2019: Assessing the Influence of Microphysical and Environmental Parameter Perturbations on Orographic Precipitation, *J. Atmos. Sci.*, **76**, 1373-1395. <https://doi.org/10.1175/JAS-D-18-0301.1>
8. Morales, A.,H. Morrison, D. J. Posselt, 2018: Orographic precipitation response to perturbations in microphysical parameters for idealized moist nearly neutral flow. *J. Atmos. Sci.,***75**, 1933-1953. <https://doi.org/10.1175/JAS-D-17-0389.1>
9. Morales, A., R. S. Schumacher, and S.M. Kreidenweis, 2015: Mesoscale vortex development during extreme precipitation: Colorado, September 2013. *Mon. Wea. Rev*., **143**, 4943-4962. <https://doi.org/10.1175/MWR-D-15-0086.1>
10. Morrison, H., A. Morales, and C. Villanueva-Birriel, 2015: Concurrent sensitivities of an idealized deep convective storm to parameterization of microphysics, horizontal grid resolution, and environmental static stability. *Mon. Wea. Rev*., **143**, 2082-2104.<https://doi.org/10.1175/MWR-D-14-00271.1>

**Research Experience**

*NOAA Physical Sciences Lab, CIRES* 2021-2023

Responsibilities: Working within the Hydrometeorology Modeling and Applications Team at the NOAA Physical Science Lab. Currently developing a science plan based off the Study of Precipitation, the Lower Atmosphere and Surface for Hydrometeorology (SPLASH) 2021-2022 field campaign in the East River watershed in Colorado. The main theme of my research was understanding how well NOAA operational models can represent orographic precipitation and the associated mesoscale and microphysics processes.

*Advanced Study Program, NCAR MMM, RAL, and Education & Outreach* 2019-2021

Responsibilities: Performing research on 1) orographic precipitation with idealized simulations and statistical sensitivity analysis methods (co-authors: Hugh Morrison, Derek Posselt), 2) the large-scale weather patterns associate with extreme wind events along the Colorado Front Range (collaborators: Rosimar Rios-Berrios, Andreas Prein), and 3) exploring best practices for bilingual video science communication, focusing on Spanish-language adult speakers (collaborator: Lorena Medina Luna, Dan Zietlow).

*Department of Climate and Space Sciences, University of Michigan*2014-2019

Responsibilities: Performed independent research on the sensitivity of orographic precipitation to microphysical, environmental, and mountain geometry perturbations under the guidance of Derek Posselt and Hugh Morrison. I ran idealized simulations of flow characteristic of atmospheric rivers using Cloud Model 1, and configured model source code and microphysics scheme to test hypotheses. Implemented a statistical algorithm to the model design and used the programming languages NCL and GrADS to visualize and analyze model output.

*Department of Atmospheric Science, Colorado State University*2012-2014

Responsibilities: Performed independent research on the effects of latent heat release to the enhancement of a mesoscale vortex during the 2013 Colorado Floods under the guidance of Russ Schumacher and Sonia Kreidenweis. I implemented code to the Thompson microphysics scheme within the Weather Research and Forecasting (WRF) model to output microphysical process rates and ran WRF with different latent heating settings.

*UCAR Significant Opportunities in Atmospheric Research and Science Program* 2012

Responsibilities: Simulated an idealized, single-cell deep convective storm using WRF and tested the sensitivity of storm development, intensity, structure, and precipitation efficiency for different microphysical parameterizations and horizontal grid spacings under the guidance of Hugh Morrison and Cecille Villanueva-Birriel.

*Department of Atmospheric Sciences, Univ. of Illinois* 2011

Responsibilities: Simulated dust and sea salt particles using the Particle-resolved Monte Carlo aerosol model to understand how the internal mixing processes develops under the guidance of Prof. Nicole Reimer and Joseph Ching.

*UCAR Significant Opportunities in Atmospheric Research and Science Program* 2011

Responsibilities: Analyzed WRF-Chem model output to correlate the short-lived hydroxyl radical with its environmental and chemical driving factors under the guidance of Sasha Madronich and Alma Hodzic.

**Honors and Awards**

Journal of Meteorological Research, 2022

Certificate of merit in recognition of high-quality review

ASP Postdoctoral Fellowship, UCAR/NCAR 2019

UM Richard F. and Eleanor A. Towner Prize for Distinguished Academic Achievement 2018

UM Rackham Predoctoral Fellowship 2018-2019

UM ScholarPOWER PhD Candidate Achievement Award 2017

NCAR ASP Summer Colloquium on Interaction of Precipitation with Orography 2017

UM Rackham Conference Travel Grant 2015, 2017, 2018

Warner Internship for Scientific Enrichment Award, NCAR RAL 2016

ASP Graduate Visitor Program – NCAR Mesoscale and Microscale Meteorology Lab 2016

2nd Place Poster Presentation – AMS 16th Conference on Mesoscale Processes 2015

UM Rackham Merit Fellowship 2015-2016, 2017-2018

SOARS Graduate Fellowship – CSU 2012-2014

UIUC High Distinction in Atmospheric Science 2012

UIUC Yoshi Ogura Undergraduate Research Award 2012

UIUC Dean’s List Honor Roll 2011, 2012

SACNAS National Conference Travel Scholarship 2011

UIUC Horace Wu Dining Service Scholarship 2011, 2012

League of United Latin American Citizens Scholarship 2008

**Publications for Non-Technical Audience and/or Opinion Pieces**

1. Morales, A., C. L. Walker, D. L. Carroll-Smith, and M. A. Burt, 2021: Code-switching and assimilation in STEM culture. *Eos*, 102. Published on 28 July 2021. <https://doi.org/10.1029/2021EO161232>
2. Morales, A., 2015: Cyclonic circulation development during extreme precipitation. *Down to Earth, Physics Today*. Published on 21 April 2015.

**Peer reviewer for manuscripts and grants**

Journal of Atmospheric Sciences

Journal of Geophysical Research: Atmospheres,

Monthly Weather Review

Bulletin of the American Meteorological Society

Geoscientific Model Development

MDPI Atmosphere

Journal of Meteorological Research

National Science Foundation

**Invited speaker**

AMS Student Conference Jan 2023

University of Illinois, Department of Atmospheric Science Seminar Series Nov 2022

University at Albany, Department of Atmospheric Science Seminar Series Sep 2022

Universidad Nacional Autónoma de México, Apr 2021 Centro de Centro de Ciencias de la Atmósfera Seminar Series

Colorado State University, Department of Atmospheric Science Colloquium Dec 2020

University of Utah, Department of Atmospheric Science Graduate Seminar Series Nov 2020

University of Wyoming, Department of Atmospheric Science Seminar Series Oct 2020

*Why AGU Scientists Study the Earth and Space*, AGU Fall Meeting Dec 2019

Haskell-NCAR Environmental Assessment Training July 2018

NCAR Bridge to the Geosciences program June 2018

NOAA Physical Science Division Seminar Dec 2018

NCAR Mesoscale and Microscale Meteorology Seminar May 2018

NASA Jet Propulsion Lab Earth Science Seminar July 2017

**Invited panelist**

AMS Early Career Leadership Academy, Webinar on Science Communication 2022

Speaker for Pagosa Springs, CO Rotary Club, Virtual 2021

AMS 19th Mountain Meteorology Virtual Conference, 2020

*Special Session: Panel Discussion on Inclusiveness*

Womxn of Color in STEM panel, CU-Boulder, Boulder, CO 2020

Diversity and Inclusion in Geoscience Lecture, Univ of WY, Virtual 2020

Panelist for Diversity and Inclusion in Geoscience Lecture, Univ of WY, Virtual 2020

ASP Postdoc panel for graduate students, Boulder, CO 2019

Career Panel for students at CU-Boulder, Boulder, CO 2019

Career Panel for students at Metro State University, Denver, CO 2019

“STEMinists of Color” career panel, Community College of Denver, CO 2019

Career Panel for students at Metro State University, Denver, CO 2019

Presenter at Q&A Session for high school girls in ZClub, Boulder, CO 2018, 2022

Undergraduate Leadership Workshop, Boulder, CO 2017

Panelist during SHPE Graduate School Q&A session, Ann Arbor, MI 2016

**Conference presentations**

^represents poster presentation

#represents virtual presentation

Morales, A., M. Molina, M. Hughes, K. Mahoney, and B. Moore, Jan 2023: SPLASHing through spatial scales: Connecting large-scale weather patterns and precipitation characteristics in an intermountain valley of Colorado. AMS Annual Meeting, 37th Conference on Hydrology.

Morales, A., M. Molina, J. Trujillo-Falcón, and co-authors, Jan 2023: Commitment to Active Allyship is Required to Address the Lack of Hispanic and Latinx Representation in the Atmospheric Sciences. AMS Annual Meeting, Fourth Symposium on Diversity, Equity, and Inclusion.

#Morales, A., L. Medina Luna, D. Zietlow, J. Lebeau, and M. Molina, Jan 2022: Does video communication style influence weather forecasting interest, learning, and inclusion for a Hispanic/Latinx audience? AMS Annual Meeting.

#Morales, A., and A. Prein, Nov 2020: Precipitation variability and intermittency over southwestern Mexico. Clouds, Convection, and Precipitation Brown Bag.

#Morales, A., and A. Prein, Nov 2020: Precipitation variability and intermittency over southwestern Mexico. Mexican Geophysical Union Annual Meeting (RAUGM).

Morales, A., Jan 2020: Understanding Environmental and Microphysical Parameter Relationships using a Markov Chain Monte Carlo Approach. Cloud-scale modelling workshop.

^Morales, A., D. J. Posselt, H. Morrison, Jan 2020: Multivariate Sensitivity Analysis of Orographic Precipitation Within an Idealized Atmospheric River Environment.AMS Annual Meeting.

^Morales, A., D. J. Posselt, H. Morrison, Dec 2019: Multivariate Sensitivity Analysis of Orographic Precipitation Within an Idealized Atmospheric River Environment.AGU Fall Meeting.

^Morales, A., D. J. Posselt, H. Morrison, Dec 2019: Multivariate Sensitivity Analysis of Orographic Precipitation Within an Idealized Atmospheric River Environment.13th Annual Earth System and Space Science Poster Conference.

^Morales, A., D. J. Posselt, H. Morrison, and F. He, Dec 2018: Orographic Precipitation Response to Microphysical and Environmental Perturbations for Idealized Moist Nearly Neutral Flow. AGU Fall Meeting.

Morales, A., D. J. Posselt, H. Morrison, and F. He, Oct 2018: Orographic Precipitation Response to Microphysical and Environmental Perturbations for Idealized Moist Nearly Neutral Flow. 8th Annual Young Scientist Symposium on Atmospheric Research.

Morales, A., D. J. Posselt, H. Morrison, and F. He, June 2018: Orographic Precipitation Response to Microphysical and Environmental Perturbations for Idealized Moist Nearly Neutral Flow. AMS Mountain Meteorology Conference.

^Morales, A.,D.J. Posselt, and H. Morrison, Jan 2018: Sensitivity of Orographic Precipitation to Microphysics Parameter and Process Perturbations. AMS 98th Annual Meeting.

Morales, A.,D.J. Posselt, and H. Morrison, July 2017: Sensitivity of Orographic Precipitation to Ice Microphysics Parameter Perturbations. AMS 17th Conference on Mesoscale Processes.

Morales, A.,D.J. Posselt, and H. Morrison, Oct 2017: Sensitivity of Orographic Precipitation to Ice Microphysics Parameter Perturbations. 7th Annual YSSAR.

Morales, A.,and D.J. Posselt, June 2016: Evaluating the Influence of Microphysics on Orographic Precipitation. AMS 17th Conference on Mountain Meteorology.

^Morales, A.,and D.J. Posselt, Dec 2015: Evaluating the influence of ice microphysics on an idealized simulation of orographic precipitation.American Geophysical Union Annual Fall Meeting.

Morales, A.,and D.J. Posselt, Aug 2015: Evaluating the influence of ice microphysics on an idealized simulation of orographic precipitation.AMS 16th Conference on Mesoscale Processes.

^Morales, A.,R. Schumacher, and S. Kreidenweis, Aug 2015: Effect of Latent Heating on Mesoscale Vortex Development during Extreme Precipitation: Colorado, September 2013. AMS 16th Conference on Mesoscale Processes.

^Morales, A.,R. Schumacher, and S. Kreidenweis, Jan 2015: Effect of Latent Heating on Mesoscale Vortex Development during Extreme Precipitation: Colorado, September 2013. AMS 95th Annual Meeting.

Morales, A., C. Villanueva-Birriel, H. Morrison, Feb 2014: Concurrent Sensitivities of an Isolated Deep Convective Storm to Parameterization of Microphysics, Horizontal Resolution, and Environmental Sounding.AMS 94th Annual Meeting.

Morales, A., C. Villanueva-Birriel, H. Morrison, Aug 2013: Sensitivity of a Simulated Deep Convective Storm to WRF Microphysical Schemes and Horizontal Resolution.Center for Multiscale Modeling of Atmospheric Processes Student Summer Colloquium.

Morales, A., C. Villanueva-Birriel, H. Morrison, July 2013: Sensitivity of a Simulated Deep Convective Storm to WRF Microphysical Schemes and Horizontal Resolution.CSU Atmospheric Chemistry Colloquium.

^Morales, A., C. Villanueva-Birriel, H. Morrison, Jan 2013: Sensitivity of a Simulated Deep Convective Storm to WRF Microphysical Schemes and Horizontal Resolution.AMS 93rd Annual Meeting.

Morales, A., C. Villanueva-Birriel, H. Morrison, Oct 2012: Sensitivity of a Simulated Deep Convective Storm to WRF Microphysical Schemes and Horizontal Resolution.CSU American Association for Aerosol Research (AAAR) Student Chapter’s YSSAR.

Morales, A., C. Villanueva-Birriel, H. Morrison, Aug 2012: Sensitivity of a Simulated Deep Convective Storm to WRF Microphysical Schemes and Horizontal Resolution.SOARS Oral Colloquium and Poster Session.

^Morales, A., A. Hodzic, S. Madronich, Jan 2012: Semi-Empirical Functions Describing the Response of Short-Lived Radicals to their Driving Forces in the WRF/Chem Model. 11th AMS Student Conference.

^Morales, A., A. Hodzic, S. Madronich, Oct 2011: Semi-Empirical Functions Describing the Response of Short-Lived Radicals to their Driving Forces in the WRF/Chem Model. Society for Advancement of Chicanos and Native Americans in Science (SACNAS) Annual Meeting.

Morales, A., A. Hodzic, S. Madronich, Aug 2011: Semi-Empirical Functions Describing the Response of Short-Lived Radicals to their Driving Forces in the WRF/Chem Model. SOARS Oral Colloquium and Poster Session.

**Field Work Experience**

*Study of Precipitation, the Lower Atmosphere and Surface for* 2021

*Hydrometeorology (SPLASH)*

Responsibilities: Deployed snow stakes, snow cameras, and temperature sensors to understand and analyze snow depth at six high-elevation sites within Gothic and Crested Butte, CO for the SPLASH campaign.

*Remote Sensing of Electrification, Lightning, and Mesoscale/Microscale*  2018

*Processes with Adaptive Ground Observations (RELAMPAGO)*

Responsibilities: Launched radiosondes to gather atmospheric data during deep convection initiation in the provinces of Córdoba and Mendoza for 7 intensive observation periods. Responsible for training students to use the Vaisala DigiCORA Sounding System MW4, setting up UHF and GPS antennas and surface stations, as well as preparing balloons and sondes. Provided Spanish translation and participated in numerous education and outreach activities with local and rural schools around Córdoba.

*Doppler On Wheels student project, UIUC Radar Meteorology Course* 2011

Responsibilities: Radar operation and data collection. Collected data on boundary layer rolls using the DOW7 mobile radar and analyzed Bragg Scattering from clear air echo. I used the GR2Analyst and NCAR/SOLO software to characterize the early Fall boundary layer.

*Profiling of Winter Storms (PLOWS)* 2009

Responsibilities: Launched radiosondes to gather atmospheric data during winter storms.

**Teaching Experience**

University of Michigan, Graduate Student Instructor Winter 2017

*CLIMATE 102 - Extreme Weather (16-week course, 3 credits)*

Responsibilities: Prepared and graded exams, held review sessions and weekly office hours,

answered daily questions through email and Active Learning Platform, and guest lectured on

Thunderstorms and Lightning for a class of over 180 undergraduate students.

Education and Outreach Field Campaign Support Nov 2018

*Remote Sensing of Electrification, Lightning, and Mesoscale/Microscale Processes with*

*Adaptive Ground Observations (On site for 3-weeks)*

Responsibilities: Sponsored by UCAR|NCAR Education and Outreach to visit local and rural

schools in Cordoba, Argentina to teach and engage elementary to high school students in

Spanish. Presented information through slides and handouts. Worked directly alongside and

supervised by Lorena Medina Luna and Daniel Zitlow.

Autonomous University of Yucatán (UADY), Visiting Instructor Summer 2013

*Introduction to Meteorology and Hurricanes (2-week course, 2 credits)*

Responsibilities: Developed curriculum for a two-week introductory course on meteorology and

hurricanes for 20 undergraduate/graduate engineering students. Translated lectures to Spanish,

prepared and graded daily homework assignments, assisted and ran daily weather discussions, and conducted hands-on experiments in Spanish. The course goal was to raise interest and encourage students to obtain higher degrees in atmospheric science and have them return to UADY in hopes of developing a graduate program with a focus in hurricane forecasting.

**Training and Mentoring Experience**

NOAA José E. Serrano Educational Partnership Program Summer 2022

With Minority Serving Institutions

Responsibilities: Designing summer project for undergraduate intern, ensuring the introductory

material is at an appropriate level for her background, providing scientific guidance and career

mentoring, and sharing non-technical traditional knowledge as a research scientist.

CIRES RECCS program Summer 2022

Responsibilities: Co-designing summer project for a community college student alongside a

NOAA colleague. Provided scientific guidance, career mentoring, and moral support as the

student navigated this new world of research.

Universidad Nacional Agraria La Molina PhD Committee Member 2021-Present

Responsibilities: Provide scientific guidance and collaborate on the student’s research projects

for their PhD. Review the technical content and English translation before paper is submitted for

peer review. Sponsor the student by recommending them as a seminar speaker and to submit

abstracts to international scientific conference to build their professional network.

University of Miami, MS Committee Member 2021-2022

Responsibilities: Provide weekly to bi-weekly mentoring on research, career, and general

motivation during their graduate program. Reviewed their manuscripts, revisions, and

encouraged their growth as a scientist.

NCAR ASP Postdoctoral Fellowship2020-2021

Responsibilities: Providing support and guidance to a first-year ASP postdoctoral fellow as they

transition into the program and independent research.

RELAMPAGO Field Campaign, Argentina Nov 2018

Responsibilities: Training of graduate students on the CSU mobile observations team to use the

radiosonde software and system, set up communication antennas and surface weather station, and

prepare weather balloons and instruments for launch.

UCAR SOARS Program Writing Mentor 2017, 2018

Responsibilities: Edited and provided critique for undergraduate student’s presentations, research

paper, and abstract.

NCAR Pre-College Internship Program Science Mentor 2016

Responsibilities: Developed a six-week project plan for a high school student and taught her to

run a numerical model and programming script to understand orographic precipitation and

analyze results. I mentored, encouraged, and answered her questions on performing scientific

research and starting college. She presented her results during the NCAR poster session and

produced a final research paper.

NCAR High School Internship and Research Opportunities Program 2011

Responsibilities: Provided peer encouragement and guidance on a research project for a high

school student intern analyzing radar data.

**Science Communication and Outreach Experience**

Goodwin Elementary Virtual Career Day, Cicero, IL 2022

NOAA’s Picture Climate Change Student Photo Contest 2022

Virtual student visit NCAR from Oaxaca, Mexico 2021

Skype a Scientist Program, Online school visits for 6th graders and 3rd graders 2020

“Ask NCAR” virtual webinar 2020

Super Science Saturday radar booth, Boulder, CO 2019

Presentations at multiple schools discussing RELAMPAGO campaign, Argentina 2018

South Kitsap School District cloud and precipitation expert, Seattle, OR 2018

Super Science Saturday storm surge booth, Boulder, CO 2017

Chelsea Elementary PTO Science Night science booth, Chelsea, MI 2017

Casa de la Esperanza science expo, Longmont, CO 2016

Engineering workshop for middle school girls, Ann Arbor, MI 2016

Northside Elementary School flooding expert, Ann Arbor, MI 2015

Chelsea Elementary PTO Science Night science booth, Chelsea, MI 2015

Family Center, Fort Collins, CO 2014

Exploring Your Horizons workshop, Boulder, CO 2014

Super Science Saturday atmospheric chemistry booth, Boulder, CO 2013

Northern Colorado Maker Faire UCAR/Spark booth, Loveland, CO 2013

Little Shop of Physics Open House, Fort Collins, CO 2013

Super Science Saturday UCAR/Spark booth, Boulder, CO 2012

AMS WeatherFest UCAR/Spark booth, New Orleans, LA 2012

Casa de la Esperanza science expo, Longmont, CO 2011

**Professional Activities**

AMS Committee of Judges for Undergraduate Awards 2023-Present

AMS Monthly Weather Review, Associate Editor 2022-Present

AMS Mountain Meteorology Committee, Full Member 2021-Present

AMS Mountain Meteorology Committee, Program Co-chair 2021-2022

AMS Speed Networking session, Mentor 2022

NCAR ASP Research Reviews Committee 2020-2021

AMS Committee for Hispanic and Latinx Advancement, 2020-2022

Academia Ambassador Lead and Academia Ambassador

AMS Members Survey Team, Member 2020-2021

NCAR Forging Allies and Connections for Equity in STEM team 2020-2021

UCAR Work From Home Task Force (Core Team) 2020

NCAR MMM Associate Director Search Committee member 2020

Denver/Boulder Local Chapter of the AMS, President 2019-2020

NCAR ASP Social Networking Committee 2019-2020

Morales Physical Science Scholarship at Morton East High School, Cicero, IL 2018-Present

AMS Mountain Meteorology Committee, Student Member 2017-2019

Climate and Space Sciences Session Co-Chair for UM Engineering Graduate Symposium 2016

Event Coordinator for department Graduate Undergraduate Student Organization 2016-2017

SOARS Newsletter Subcommittee 2016-2017

Monthly “Ladies Lunch” in CLaSP, Co-developer and Organizer 2015-2016

CLaSP Department Grievance Committee Member 2015-2017

UM College of Engineering Department Visit Committee member 2015

UM Grad Chapter of Society of Hispanic Professional Engineers, Membership Chair 2015

AMS Student Conference Planning Committee, Session chair and Member 2013-2015

CSU Graduate Student Council, Atmospheric Science M.S. Representative 2013-2014

CSU American Association for Aerosol Research (AAAR) Student Chapter, 2012-2014

Member and Secretary

**Professional Development Participation**

AMS Short Course – Introduction to WRF-Hydro 2021

NCAR Bystander Intervention and Difficult Conversations Training 2020

NCAR Citizen Science Short Course 2020

NCAR ASP Leadership and Diversity, Equity, and Inclusion Training 2020

Engaged Scientist Workshop, “Communication Tools for Effective Outreach” 2019

ESWN Professional Development Workshop: Leadership Skills for Success 2019

in the Scientific Workforce

Atmospheric River Summer Colloquium at Scripps Institute of Oceanography 2019

ASP Summer Colloquium on Interaction of Precipitation with Orography 2017

University of Washington, OLYMPEX Workshop 2017

Introduction to Bayesian Statistics Workshop, NCAR 2016

Studies of Precipitation, Flooding, and Rainfall Extremes Across Disciplines 2013, 2014

Workshops

CSU Professional Development Institute workshops 2013, 2014

**Spanish Translation Service**

Boulder Library Champions, Informational handouts 2022

Handbook: Climate Myth Debunking for TV Meteorologists 2021

AMS Statement: Hurricane Preparedness During the COVID-19 Pandemic 2020