

# Kathrin Alber

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## EDUCATION

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<b>University at Albany, SUNY, Albany, NY, USA</b> <i>Ph.D. Student, Department of Atmospheric and Environmental Science (DAES)</i> <i>Advisor: Dr. Liming Zhou</i>	<b>09/2019-present</b>
<b>George Mason University, Fairfax, VA, USA</b> <i>M.S. Thesis, Atmospheric, Oceanic &amp; Earth Sciences Department (AOES)</i> <i>Advisor: Dr. Kathy Pego</i>	<b>08/2017-08/2018</b>
<b>University of Basel, Switzerland</b> <i>M.S. in Geoscience, Department of Atmospheric Sciences</i> <i>Advisor: Dr. Eberhard Parlow</i>	<b>01/2016-01/2019</b>
<b>University of Basel, Switzerland</b> <i>B.S. in Geoscience, Department of Atmospheric Sciences</i> <i>Advisor: Dr. Eberhard Parlow</i>	<b>08/2012-01/2016</b>

## RESEARCH EXPERIENCE

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<b>Graduate Research Assistant</b> <i>DAES, University at Albany</i> <ul style="list-style-type: none"><li>Analyzing thunderstorm activity and trends over the Congo Rainforest</li><li>Investigating changes in the timing and intensity of the diurnal cycle of convection over the Congo Rainforest</li><li>Assessing the effects of drying trend and different modes of variability on the diurnal cycle of convection over the Congo Rainforest</li><li>Passed Ph.D. qualification exam (Dec 2020) and Ph.D. prospectus (Nov 2021)</li></ul>	<b>09/2019-present</b>
<b>Research Investigator</b> <i>AOES, George Mason University</i> <ul style="list-style-type: none"><li>Analyzed the predictability of the North Atlantic Oscillation</li></ul>	<b>08/2017-08/2018</b>
<b>Research Investigator</b> <i>Gobabeb Research and Training Centre, Namibia</i> <ul style="list-style-type: none"><li>Quantified fog distribution in the Namib desert</li></ul>	<b>08/2015-09/2015</b>

## PUBLICATIONS

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### Peer-reviewed:

**Alber, K.,** Raghavendra, A., Zhou, L. et al., 2021. Analyzing intensifying thunderstorms over the Congo Basin using the Gálvez-Davison index from 1983–2018. *Clim. Dyn.* 56, 949–967 (2021). <https://doi.org/10.1007/s00382-020-05513-x>

**Alber, K.,** Zhou, L., and Raghavendra, A., 2021. A shift in the diurnal timing and intensity of deep convection over the Congo Basin during the past 40 years. Atmos. Res. 264, 0169-8095.  
<https://doi.org/10.1016/j.atmosres.2021.105869>

## CONFERENCE PRESENTATIONS

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**102<sup>nd</sup> AMS Annual Meeting** 2022  
A shift in the diurnal timing and intensity of deep convection over the Congo Basin during the past 40 years.  
(Oral)

**101<sup>st</sup> AMS Annual Meeting** 2021  
Analyzing intensifying thunderstorms over the Congo Basin using the Gálvez-Davison index from 1983–2018. (Oral)

## HONORS AND AWARDS

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Master's Thesis, Zeno Karl Schindler Foundation 2017  
Master's Thesis, Karitative Stiftung Dr. Gerber-ten Bosch 2017

## INTERNSHIPS

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**Meteotest, Bern, Switzerland** 08/2018-02/2019  
Internship weather forecasting

- Analyzed weather patterns using different models
- Issued daily written weather forecasts for newspapers, TV channels, and websites
- Performed multiple live weather radio interviews every day
- Provided personalized weather information on the phone for individual people, helicopter operations, and mountaineers
- Taught weather, climate, and natural disaster classes for elementary school classes
- Prepared weather reports for insurance companies

**MeteoNews, Zürich, Switzerland** 10/2015-03/2016  
Internship weather forecasting

- Analyzed weather patterns using different models
- Issued daily written weather forecasts for newspapers, TV channels, and websites

## WORKSHOPS AND SUMMER SCHOOLS

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NCAR Trustworthy Artificial Intelligence for Environmental Science (TAI4ES) 06/2022

- Summer school on developing trustworthy AI for the earth and environmental sciences

## TECHNICAL SKILLS

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**Programming:** MATLAB, Python, GrADS, Linux shell scripting  
**Datasets:** ERA-Interim, ERA5, GridSat-B1, MODIS, MERRA-2, NOAA CPC, TRMM, IMERG, GLEAM, CMORPH

**Version control:** Git, Github  
**Platforms:** Mac, Windows, Linux

## SERVICE AND OUTREACH

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### PROFESSIONAL

**Journal Reviewer:** Journal of Climate

**Session Co-Chair:** AMS 102<sup>nd</sup> annual meeting, Session 8A African Climate Variability and Change **2022**

### UNIVERSITY AT ALBANY

**Organizer:** DAES Climate group weekly meetings **2020-2021**

### UNIVERSITY OF BASEL

**Mentor:** Open lecture auditorium for refugees and asylum seekers **2017**

## VOLUNTEER EXPERIENCE

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### Adirondack Mountain Rescue

- Technical rescue committee member **2022-present**
- Active field member **2022-present**

### Thacher Climbing Coalition

- Board member **2021-present**
- Membership chair **2020-present**

### Swiss Alpine Club

- Climbing and mountaineering guide for children and young adults **2014-2019**

## LANGUAGES

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German (Native), English (Fluent), Spanish (Proficient), French (Conversational), Norwegian (Basic)

## PROFESSIONAL AFFILIATIONS

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Canadian Avalanche Association **2022-present**  
American Avalanche Association **2022-present**  
American Meteorological Association **2020-present**

## OTHER CERTIFICATIONS

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### The American Institute for Avalanche Research and Education (AIARE)

- AIARE Avalanche Rescue **2022**
- AIARE 1 **2021**