# **Employment History**

00/2024 - present	<b>Postdoctoral Researcher</b> UCAR CPAESS/NOAA GEDL
09/2018 - 06/2024	<ul> <li>Graduate Student Researcher Earth Research Institute, University of California, Santa Barbara</li> </ul>
03/2019 - 06/2023	<b>Teaching Assistant</b> Department of Geography, University of California, Santa Barbara
Education	
09/2018 – 06/2024	Ph.D., University of California, Santa Barbara Marine Science Emphasis in Climate Sciences and Climate Change Committee: Dr. Qinghua Ding (chair), Dr. Tim DeVries, Dr. Charles Jones Thesis title: The Impact of Large-Scale Circulation on Recent Rapid Climate Changes in High Northern Latitudes
09/2020 – 06/2024	M.A., University of California, Santa Barbara Statistics
09/2016 - 06/2018	<b>B.S., University of Tasmania</b> Marine and Antarctic Science, First Class Honours
09/2014 - 06/2016	<b>B.S., Ocean University of China</b> Marine Science

# **Research Publications**

- Ballinger, T. J., Moore, K., Ding, Q., Butler, A. H., Overland, J. E., Thoman, R. L., Baxter, I., Li, Z., & Hanna, E. (2024). Simultaneous bering sea and labrador sea ice melt extremes in march 2023: A confluence of meteorological events aligned with stratosphere-troposphere interactions. *Weather and Climate Dynamics, In Revision*.
  - Li, Z., & Ding, Q. (2024). A global poleward shift of atmospheric rivers. Science Advances, In press.
  - Li, Z., Ding, Q., Ballinger, T. J., Topál, D., & Baxter, I. (2024). Atmospheric-driven processes in shaping long-term climate variability in greenland and the broader subpolar north atlantic. *Journal of Climate, In Revision*.
  - Wang, Z., Ding, Q., Wu, R., Ballinger, T. J., Guan, B., Bozkurt, D., Nash, D., Baxter, I., Topál, D., Li, Z., et al. (2024). Role of atmospheric rivers in shaping long term arctic moisture variability. *Nature Communications*, *15*(1), 5505.
- 5 Li, Z., Ding, Q., Steele, M., & Schweiger, A. (2022). Recent upper arctic ocean warming expedited by summertime atmospheric processes. *Nature communications*, *13*(1), 362.
- <sup>6</sup> Topál, D., Ding, Q., Ballinger, T. J., Hanna, E., Fettweis, X., Li, Z., & Pieczka, I. (2022). Discrepancies between observations and climate models of large-scale wind-driven greenland melt influence sea-level rise projections. *Nature Communications*, *13*(1), 6833.

## Skills

3

Languages 📕 Strong reading, writing and speaking competencies for English, Mandarin Chinese

# Skills (continued)

Coding Knowledge Python, Fortran, Matlab, R, JAVA, SQL, GRADS, &TEX, ...

Large-scale Climate Dynamics, Climate Modeling (CESM), Big Climate Data (CMIP5/6), Machine Learning (ANN, CNN, KNN, etc.), Geo-spatiotemporal Analysis, Remote Sensing, Statistical Models

# **Talks and Conferences**

#### **Invited Talks**

2022		BGC Seminar, University of Bristol, "Recent Upper Arctic Ocean Warming Expedited by					
		Summertime Internal Atmospheric Processes"					

2021 Climate Meeting, University of California, Santa Barbara, "Recent Upper Arctic Ocean Warming Expedited by Summertime Internal Atmospheric Processes"

#### Conferences

- 2022 **If the Graduate Climate Conference**, Pack Forest, CA. "Recent Upper Arctic Ocean Warming Expedited by Summertime Internal Atmospheric Processes" [POSTER]
- 2021 American Meteorological Society's 16th Conference on Polar Meteorology and Oceanography, Remote. "Recent Upper Arctic Ocean Warming Expedited by Summertime Internal Atmospheric Processes" [ORAL]
- 2020 AGU20 Fall Meeting, Remote. "Recent Upper Arctic Ocean Warming Expedited by Summertime Internal Atmospheric Processes" [POSTER]
- 2019 AGU19 Fall Meeting, Remote. "An Atmospheric Driver of the Upper Ocean Heat Content in the Arctic" [POSTER]
  - American Meteorological Society's 15th Conference on Polar Meteorology and Oceanography, Boulder, CO. "An Atmospheric Driver of the Upper Ocean Heat Content in the Arctic" [ORAL]

## **Trainings and Workshops**

2022	CESM Tutorial, NCAR Mesa Lab, Boulder, CO
	<b>Trustworthy Artificial Intelligence for Environment Science (TAI4ES) Summer School</b> , Virtual
	The 27th CESM Annual Workshop, Virtual
2020	Data Science Training for Arctic Researchers, The Arctic Data Center, Santa Barbara, CA
	The 25th CESM Annual Workshop, Virtual
2019	ICESat-2 Hackweek, University of Washington, Seattle, WA

### Awards, Fellowships, and Honors

2023	Graduate Division Dissertation Fellowship, UC Santa Barbara	
2022	IGPMS Summer Block Grant Stipend for Research, UC Santa Barbara	
	Graduate Division ARP Summer Grant, UC Santa Barbara	
	CESM Tutorial Travel Support, NCAR	

## Awards, Fellowships, and Honors (continued)



## **Teaching and Mentoring Experience**

<b>Research Mentor</b>	UCSB Research Mentorship Program, Summer 2022
Teaching Assistant	Geography 115C: Remote Sensing of the Environment 3, Spring 2023
	Geography 115B: Remote Sensing of the Environment 2, Winter 2023
	Geography 115A: Remote Sensing of the Environment, Fall 2022
	Geography 119: Climate Change, Summer 2022
	Geography 5: People, Place, and Environment, Spring 2020
	Geography 113: Polar Environments, Spring 2019

#### Service and Outreach



#### References

Available on Request