

# ZACHARY M. LABE, PH.D.

I am a climate scientist trying to visualize the signal from a lot of noise.

✉ [zachary.labe@noaa.gov](mailto:zachary.labe@noaa.gov) ☎ +1.609.452.6571 📍 Princeton, New Jersey 08540 USA 🌐 [zacklabe.com](http://zacklabe.com)  
in [linkedin.com/in/zacharylabe](https://www.linkedin.com/in/zacharylabe) 🐦 [twitter.com/ZLabe](https://twitter.com/ZLabe) 📄 [github.com/zmlabe](https://github.com/zmlabe) 🗄 [slideshare.net/ZacharyLabe](https://slideshare.net/ZacharyLabe)

## BACKGROUND

- Interested in the role of climate change on prediction, extremes, & variability
- Published 19 peer-reviewed scientific articles in high-impact journals
- Contributor to several international annual climate assessment reports
- Experience in mentoring an undergraduate summer research project (REU)
- Presented >50 talks for both technical and non-specialist audiences
- >100 interviews with local to international media outlets on climate change
- Communicate weather/climate data on Twitter (>1 million views per month)
- Selected as a Kavli Fellow of the National Academy of Sciences in 2019

## RESEARCH & WORK EXPERIENCE

### Postdoctoral Research Associate

#### Princeton University & NOAA GFDL

📅 May 2022 – Ongoing 📍 Princeton, NJ

- Developing a framework to attribute extreme events in near real-time using climate models and other data-driven methods, like machine learning

### Postdoctoral Researcher

#### Colorado State University

📅 June 2020 – April 2022 📍 Fort Collins, CO

- Leveraged new explainable machine learning methods for extracting patterns of forced climate change from internal variability
- Awarded a Sustainability Leadership Fellowship at Colorado State University with formal training in science communication, policy, and outreach

### Graduate Research Assistant

#### University of California, Irvine

📅 September 2015 – June 2020 📍 Irvine, CA

- Assessed influences of Arctic amplification and Arctic sea ice on extreme weather by designing novel climate model experiments
- Awarded National Science Foundation NRT-DESE fellowship in the Machine Learning and Physical Sciences Program at the University of California, Irvine
- *Teaching Assistant Courses:* Earth System Physics, Fundamental Processes in Earth and Environmental Studies, Terrestrial Hydrology, Weather Analysis

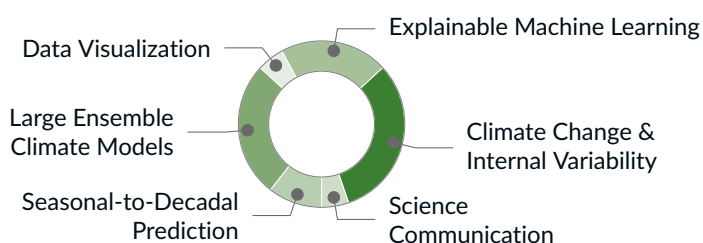
### Undergraduate Research Assistant

#### Cornell University

📅 April 2014 – August 2015 📍 Ithaca, NY

- Evaluated the magnitude, frequency, and dynamics of phenological spring onset using community science observations
- *Teaching Assistant Courses:* Basic Meteorology Lab, Computer Programming and Meteorological Software

## INTERESTS



## EDUCATION

### Ph.D. in Earth System Science

#### University of California, Irvine

📅 September 2017 – May 2020

- Thesis: The effects of Arctic sea-ice thickness loss and stratospheric variability on mid-latitude cold spells

### M.Sc. in Earth System Science

#### University of California, Irvine

📅 September 2015 – September 2017

### B.Sc in Atmospheric Science

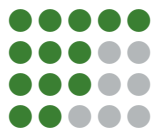
#### Cornell University

📅 August 2011 – May 2015

- Distinction in Research
- Dyson Business Minor for Life Sciences

## TECHNICAL SKILLS

Python  
Matlab  
bash  
R



## STRENGTHS

### • Python Tools

Cartopy Keras Matplotlib Numpy  
Pandas Seaborn Scikit-learn SciPy  
Statsmodels Tensorflow Xarray

### • Other Programming & Software

Git HTML NCL NCO/CDO LaTeX

### • High-Performance Computing

NCAR's Cheyenne/Yellowstone Linux  
NOAA's RDHPCS CMIP5/6 ESGF

## BROADER SKILL SET

Data-driven Science Visualization  
Interdisciplinary Kindness Leadership  
Machine Learning Team Science  
Communication Blog/Technical Writing