

ZACHARY M. LABE, PH.D.

✉ zacklabe.climate@gmail.com 🔗 zacklabe.com in [linkedin.com/in/zacharylabe](https://www.linkedin.com/in/zacharylabe)

🎓 scholar.google.com/citations?user=E6cJPWcAAAAJ

BACKGROUND

- Interested in climate attribution, risk/impact assessments, & linkages to policy
- Published **33 peer-reviewed** scientific articles (journal/technical reports)
- Presented more than **75 talks** for technical & non-specialist audiences
- Conducted over **100 interviews** with local-to-international news media
- Visualize & communicate climate data on social media (**100,000+ followers**)
- Coordinated **6 sessions** at local workshops & international climate meetings
- Participated on **3** grant proposal panels & reviewed over **50** journal studies
- Honored as a Kavli Fellow of the National Academy of Sciences in 2019

RESEARCH & WORK EXPERIENCE

Research Physical Scientist (Federal)

NOAA Geophysical Fluid Dynamics Laboratory (GFDL)

📅 June 2024 – Present 📍 Princeton, NJ

- Led innovative original research on climate impacts & AI/machine learning
- Collaborated with civil engineers to use climate data for infrastructure resiliency
- Contributed to international global climate & weather assessments annually
- Assessed & developed high-resolution global climate models for improving prediction, projection, and risk assessment of natural hazards

Postdoc to Associate Research Scholar

Princeton University & NOAA GFDL

📅 May 2022 – June 2024 📍 Princeton, NJ

- Designed a framework to attribute high-impact climate extremes in near real-time using observations, models, and other data-driven statistical methods
- Collaborated with local/federal stakeholders & educational science nonprofits

Postdoc

Colorado State University

📅 June 2020 – April 2022 📍 Fort Collins, CO

- Leveraged explainable machine learning techniques for identifying new patterns of anthropogenic climate change relative to those from natural variability
- Awarded a Sustainability Leadership Fellowship at Colorado State University with formal training in science communication, policy, and educational outreach

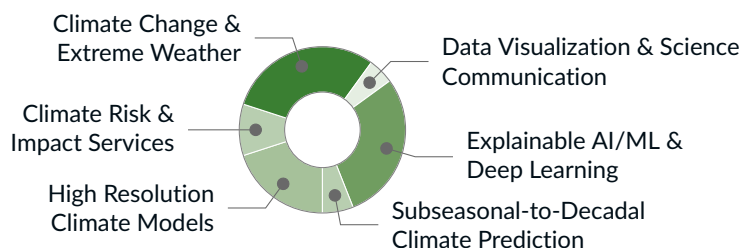
Graduate Research Assistant

University of California, Irvine

📅 September 2015 – June 2020 📍 Irvine, CA

- Implemented new modeling experiments to understand Arctic climate extremes
- Awarded National Science Foundation NRT Fellowship for data science

INTERESTS



EDUCATION

Ph.D. in Earth System Science

University of California, Irvine (CA)

📅 December 2017 – June 2020

M.Sc. in Earth System Science

University of California, Irvine (CA)

📅 September 2015 – December 2017

B.Sc in Atmospheric Science

Cornell University (NY)

📅 August 2011 – May 2015

- *Distinction in Research*
- Dyson Business Minor for Life Sciences

TECHNICAL SKILLS

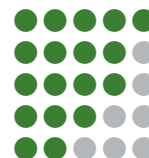
Python

AI/ML

Shell Scripting

Matlab

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

Critical Problem-Solving Visualization
Interdisciplinary Kindness Leadership
Machine Learning Team Science
Communication Blog/Technical Writing