ZACHARY M. LABE, PH.D.

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

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BACKGROUND

- Developed & led innovative research on climate impacts & machine learning
- Published **33 peer-reviewed** scientific articles (journals/technical papers)
- Collaborated with local/federal stakeholders and educational nonprofits
- Presented more than **75 talks** for both technical & non-specialist audiences
- Conducted over **100 interviews** with local-to-international news media
- Highly experienced in working on large, interdisciplinary teams & mentoring
- Contributor to international global climate & weather assessment reports
- Communicate & visualize climate data on social media (**100,000+ followers**)
- Honored as a Kavli Fellow of the National Academy of Sciences in 2019

RESEARCH & WORK EXPERIENCE

Research Physical Scientist (NOAA Federal)

Geophysical Fluid Dynamics Laboratory (GFDL)

June 2024 – Ongoing | Princeton, NJ

- Applying AI/ML methods to assess & develop high-resolution climate models for improving climate prediction, projection, and risk assessment

Postdoc/Associate Research Scholar

Princeton University & NOAA GFDL

May 2022 – June 2024 | Princeton, NJ

- Designed a framework to attribute extreme events in near real-time using observations, climate models and other data-driven statistical methods

Postdoc

Colorado State University

June 2020 – April 2022 | Fort Collins, CO

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

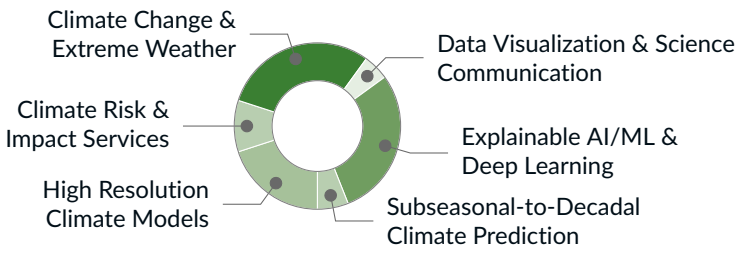
Graduate Research Assistant

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

INTERESTS



EDUCATION

Ph.D. in Earth System Science

University of California, Irvine

December 2017 – June 2020

M.Sc. in Earth System Science

University of California, Irvine

September 2015 – December 2017

B.Sc in Atmospheric Science

Cornell University

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