At the Arctic Data Center, we're looking forward to what advancements we can accomplish this summer and on. Each year, our data curation and outreach teams provide hands-on workshops held in Santa Barbara, CA and virtually. They have been working hard to make that possible, **we are excited to announce the dates for our 2025 data science training workshops.** Limited travel support is available for in-person participation. Get ready to mark your calendar!

We also want to remind everyone that the 2024 Community Survey is still open for feedback and will close next week! We encourage all Arctic community members to share their insights. Your feedback is **invaluable** in shaping our data science trainings, services and products, and in enhancing our support for the Arctic research community as the primary NSF Arctic data repository. Additionally, the Arctic Data Center is dedicated to assisting researchers with data management. If you plan to submit soon and need help, please reach out early to ensure a smooth submission and approval process.

Arctic Data Center Data Science Courses

January 27th - 31st, 2025

Fundamentals of Qualitative and Quantitative Data Management for Arctic Research

This ***five day in-person workshop*** will take place at the National Center for Ecological Analysis and Synthesis (NCEAS) in Santa Barbara, CA. It aims to provide researchers with an overview of reproducible and ethical research practices, steps and methods for more easily documenting and preserving their data at the Arctic Data Center, and an introduction to programming in R, paying particular attention to qualitative data management. **Applications are now open and close on August 16, 2024, but if an extension is needed please reach out.**

Expected topics to cover:

- Introduction to programming R and reproducible research 101

- Qualitative data management for reproducible research
- Definitions of data and best practices for management
- Data publishing and metadata
- Cleaning and wrangling data
- Ethical data collection (CARE principles)
- Reproducible survey workflows
- Text analysis in R
- Working with census data

Register for this workshop

February 24th - 28th, 2025

Reproducible Practices for Arctic Research Using R

This ***five day virtual workshop*** aims to gather Arctic researchers with proficient programming skills in R looking to enhance those skills. We will provide an overview of best data management practices, data science tools for cleaning and analyzing data, and concrete steps and methods for more easily documenting and preserving their data at the Arctic Data Center. **Course applications are set to open on August 5, 2024.**

Some topics expected to be cover:

- Literate analysis (RMarkdown)
- Data wrangling (tidyr/dplyr)
- Data publishing
- Data visualization (ggplot2/sf)
- Code versioning (git)
- Ethical data procedures (CARE Principles)

April 7th - 11th, 2025

Fundamentals of Qualitative and Quantitative Data Management for Arctic Research

This ***five day in-person workshop*** will also take place at NCEAS in Santa Barbara, CA. It will provide researchers with an introduction to advanced topics in computationally reproducible research in Python, including

software and techniques for working with very large datasets. **Course applications are set to open on September 2, 2024.**

Some topics expected to be cover:

- Scalable and remote computing
- Cloud computing concepts
- Docker environments
- Parallel processing and concurrency
- Large data transfer, data staging, data extraction
- I/O efficiency

Stay up to date with our upcoming trainings

These three courses cater to **different programming skill levels** in R and Python. Review our previous training materials to determine which course best fits your needs. Should you have any questions or further inquiries, please reach out to our team via email at training@arcticdata.io or use the contact information at the bottom of this newsletter.

October 2024

Cyber 2A: AI for Arctic CyberTraining User Survey

The NSF CyberTraining project is aiming to provide an in-person workshop this October to equip current and next-generation Arctic scientists with cutting-edge analytical skills in AI. They are kindly requesting researchers to participate in a questionnaire to collect AI training needs for Arctic sciences. The questionnaire will be anonymous, and your input will be used solely for the purpose of developing the training materials. It will take about 10 minutes to complete, and they would greatly appreciate your input!

Link to Cybertraining User Survey

Dataset Highlight: An Interview with Dr. Logan Berner about Arctic Plant Biomass

Recently, Nicole Greco had the opportunity to interview Dr. Logan Berner about his dataset published onto the Arctic Data Center. This interview allowed us to bridge the science with the inspiring people behind it! Dr. Berner shared insights into how Arctic vegetation is adapting to a changing environment and what it's like work in the high latitudes. Read more about the scientist behind the discoveries on our new blog post and visit Dr. Berner's feature on Nature. Keep your eyes peeled for more dataset highlights to come!

Check out the dataset

Cyber 2A Webinar

Join us on June 24, 2024, for a webinar hosted by Cyber 2A, a collaborator of the Permafrost Discovery Gateway and the Arctic Data Center, featuring Dr. Konstantin Klemmer from Microsoft Research. Dr. Klemmer will introduce geographic location encoders, innovative neural network models for Earth observation data that integrate scalability, geospatial knowledge, and geodesy. He will also demonstrate their applications in climate and species distribution modeling, as well as label-free training using contrastive self-supervised learning on global satellite imagery.

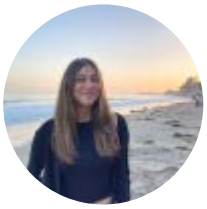
Check out their GitHub page to learn more about this webinar and more to follow in the future!

Register for webinar

2024 Arctic Data Center Community Survey

Reminder: Our community survey closes next week on June 28, 2024! We invite Arctic researchers to share their valuable feedback and insights. If you've submitted data to our repository, attended our data science trainings, or used our tools and services, please take 10-15 minutes to complete the survey. All responses are anonymous. For more information, visit the survey link or email us at info@arcticdata.io. **Please share this survey with your colleagues!**

Link to Community Survey



Best regards,
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