Resources and Funding Opportunites for Research and Education

Amy Apon, Program Officer

Office of Advanced Cyberinfrastructure
US National Science Foundation
January 14, 2,026

OAC was created to transform science and engineering research through an integrated cyberinfrastructure ecosystem

CloudBank

Computing, data infrastructure, regional networking

Community building, training and user support

>25,000 researchers and students supported by OAC resources

Cybersecurity, networking and data lifecycle Support for NSF's Major Facilities

nanoHUB

Galaxy PROJECT

Software Frameworks and Gateways

OAC nurtures **early-stage** infrastructure research and pilot awards to **national scale** resources

Internal news

- NSF headquarters is moving → a nearby building in Alexandria
- NSF is reorganizing, including the CISE Directorate. OAC will stay together as an Office, but our operations and support staff will change.
  - Ed Walker will become the federal staff head of OAC. Amy Walton will be promoted to the CISE front office.
- NSF is in the process of simplifying solicitations and consolidating opportunities to fewer, broader programs (more on this in later slides)


Amy Walton


Katie Antypas


Ed Walker


Andrey Kanaev


Marlon Pierce


Kevin Thompson


Alejandro Suarez


Sharmistha Bagchi-Sen


Bob Chadduck


Sharon Geva

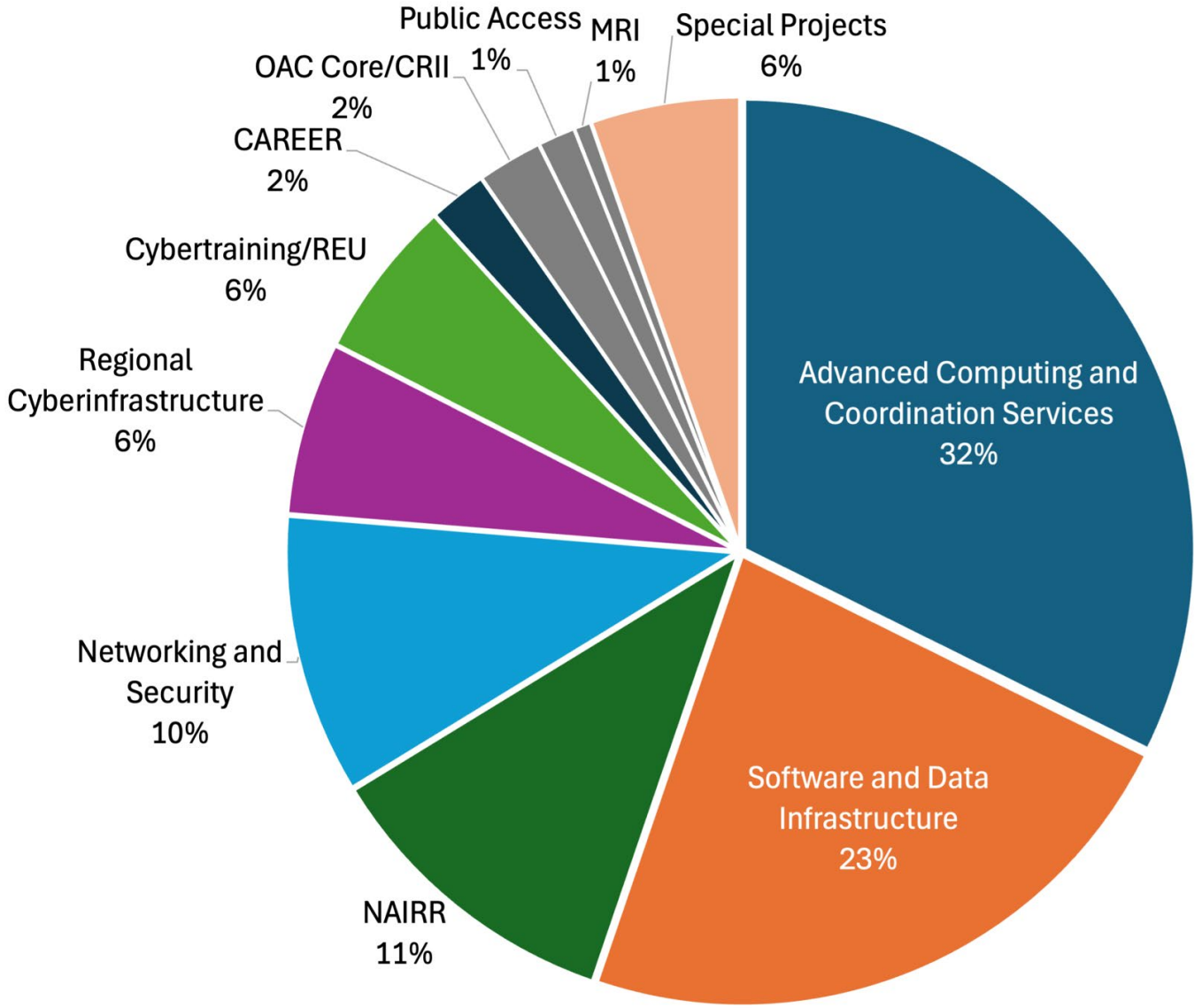

Amy Apon


Sheikh Ghafoor


Plato Smith


Wen-Wen Tung

OAC FY25 Funding Breakdown by Program



$249M ~380 award actions
Coop Agreements $103M
Standard Grants $146M
21 EAGER Awards

Note that Leadership Class Computing Facility funded out of the MREFC account

OAC provides many resources and services!

Examples include:

National Computing, Data, and AI Resources

ACCESS Advancing Innovation
ALLOCATIONS SUPPORT OPERATIONS METRICS

PATh PARTNERSHIP to ADVANCE THROUGHPUT COMPUTING
Throughput Computing, Data, and Support

NRP NATIONAL RESEARCH PLATFORM

SGX3
Science Gateways

NAIRR Pilot National Artificial Intelligence Research Resource Pilot

Training, Workshops, and More

- https://support.access-ci.org/events
- https://portal.osg-htc.org/documentation/support_and_training/training/materials/
- https://nairrpilot.org/pilotevents
- https://www.nrp.ai/training/

Community and Workforce Development

ms-cc.org in partnership with Internet2
Minority Serving CI Consortium
www.ms-cc.org

CaRCC Campus Research Computing Consortium
Campus Research Computing Consortium
www.carcc.org

TRUSTED CI
THE NSF CYBERSECURITY CENTER OF EXCELLENCE

Portals

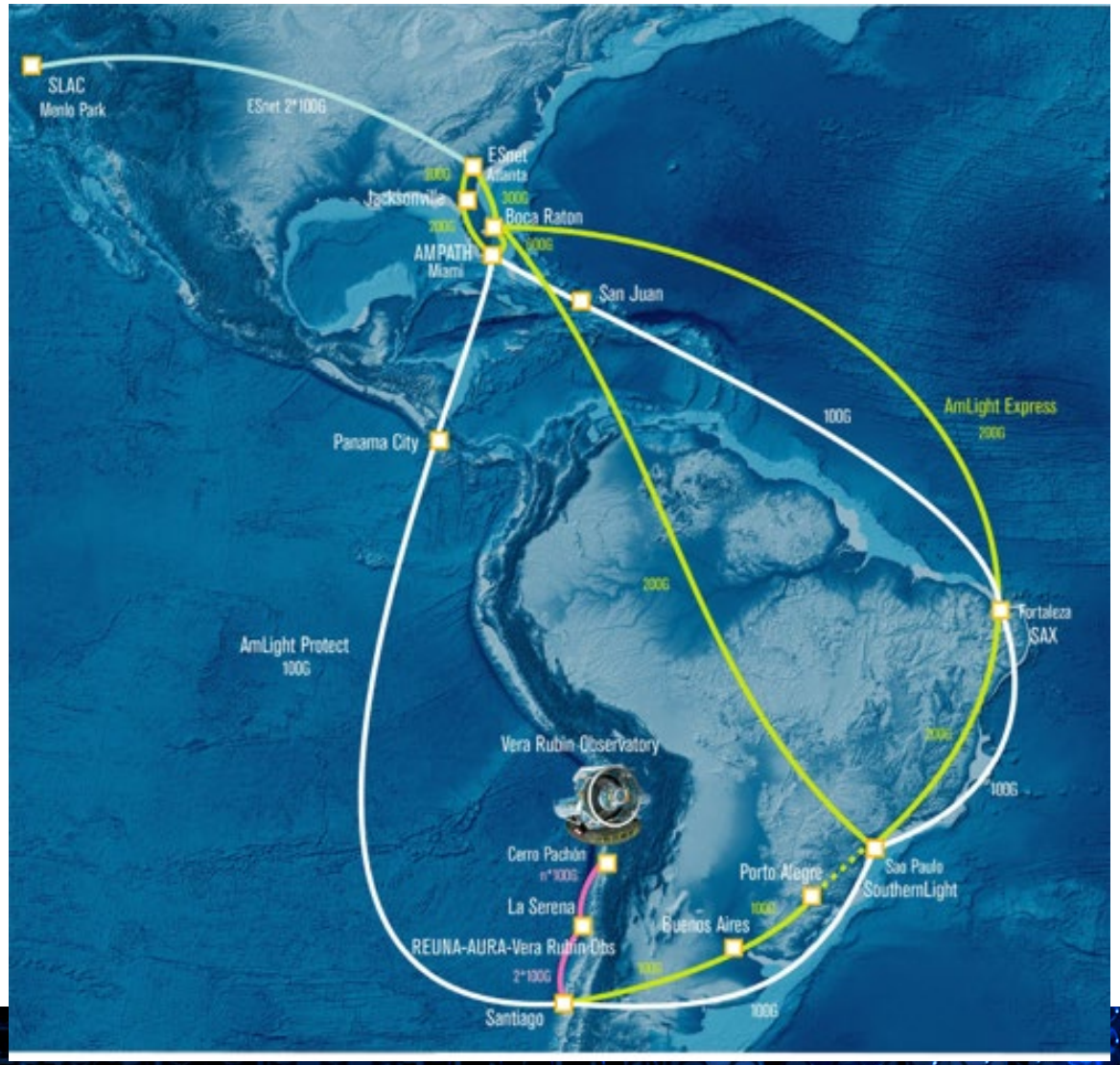
- **ACCESS: https://access-ci.org/**
- **PATh: https://path-cc.io/**
- **NAIRR Pilot: https://nairrpilot.org**
- **CaRCC: https://carcc.org/**
- SGX3: https://sciencegateways.org/
- LCCF: https://lccf.tacc.utexas.edu/
- MSCC: https://www.ms-cc.org/
- Trusted CI: https://www.trustedci.org/

Highlights of OAC NetSec Awards

OAC investments played key role in Vera Rubin first light nurturing networking R&D and supporting training programs and cybersecurity community years before first light

International Networking Program: AmLight award
(#0963053, 1140833, 1741598, 2029283, 2225313, 1140833, 2537489 FIU)

- High-speed network endpoints, software and telemetry for RT data transfer to/from SLAC

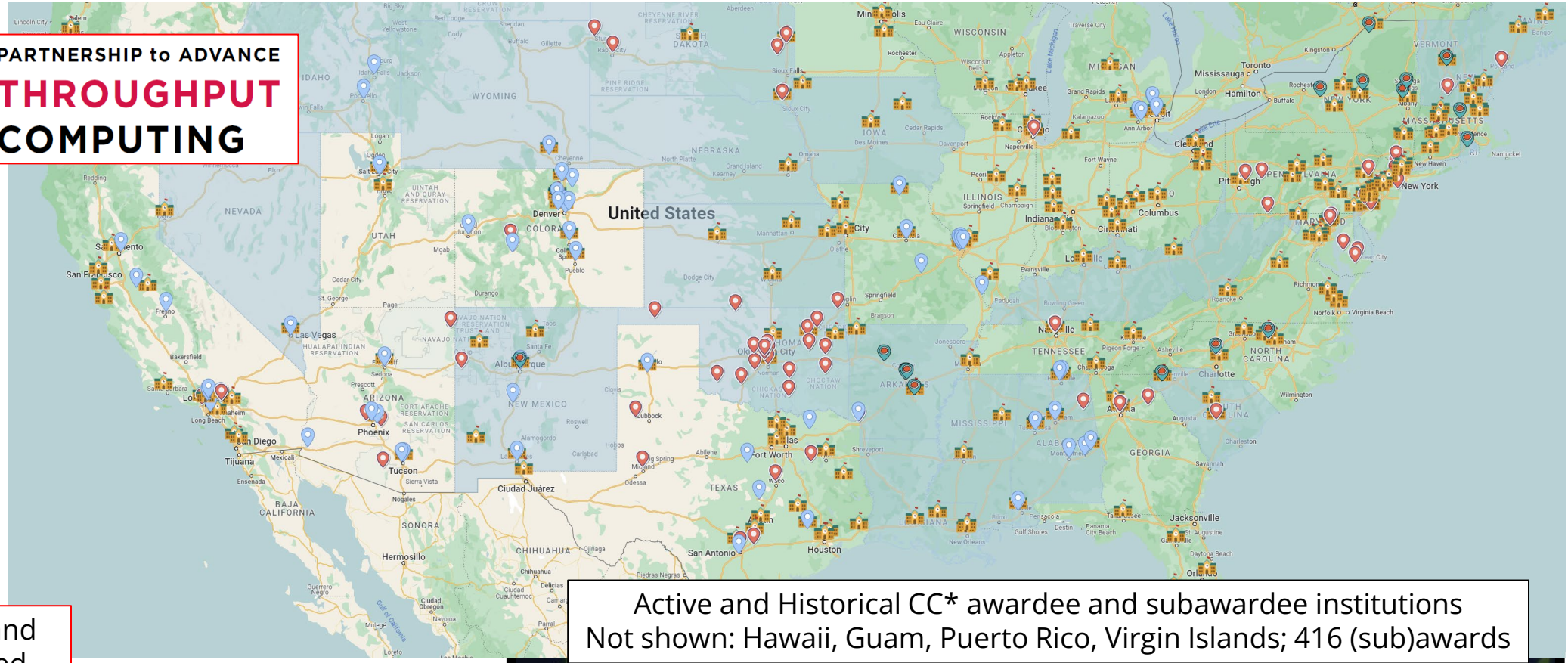


TRUSTED CI
THE NSF CYBERSECURITY CENTER OF EXCELLENCE

Cybertraining: LSST (Vera Rubin) Data Science Fellowship Program
(#1829740 Northwestern U, PI Miller) $500K
A two-year graduate training program designed to teach skills for Vera Ruben Science

PATh

PARTNERSHIP to ADVANCE THROUGHPUT COMPUTING



Active and Historical CC* awardee and subawardee institutions
Not shown: Hawaii, Guam, Puerto Rico, Virgin Islands; 416 (sub)awards

Campus computing and data resources shared onto the US national cyberinfrastructure via OSG
https://path-cc.io/

CC* awardess share 20% of compute and storage, most often to OSPool and OSDF

CC* Regional Computing: CENVAL-ARC: Central Valley Accessible Research and Computational Hub

Challenge Project Seeks to Address:

Empowering researchers and students from underserved Institutions in California's Central Valley by providing cutting-edge computational resources and expertise.

Solution(s) or Deliverables:

- Adding compute capacity
- CENVAL-ARC symposium

NSF OAC Award # 2346744

UCMERCED
CENVAL-ARC
Central Valley Accessible Research and Computational Hub

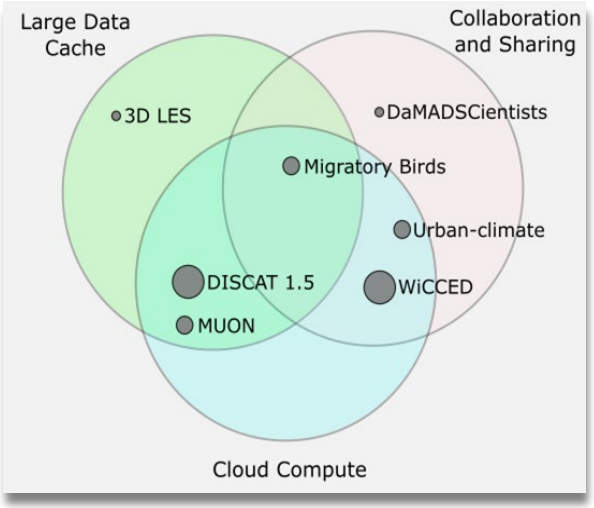
CC* Data Storage: Shareable, Equitable, and Extensible Data Storage for Collaborative Data-intensive Research

Science-Driven Active Data Preservation & Dissemination

- Two 1.2 Petabyte S3 data storage systems
- Collaboration between UD's Information Technologies; Library, Museums and Press; research faculty
- Using Open Storage Network, integrated with existing local and national resources (e.g., DARWIN, ACCESS)

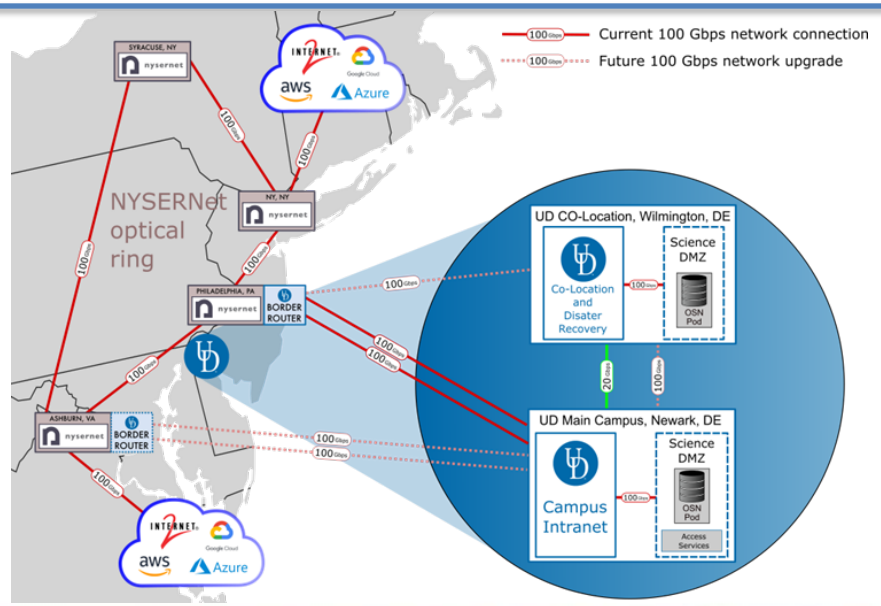
Diverse Science Drivers

- Research *and* education spanning engineering, natural & social sciences
- Differing needs in data cache size, collaboration & sharing, and cloud compute



Broader Impact and Intellectual Merit

- Catalyzing interdisciplinary research and education at UD
- 20% of the resource will address national storage needs, via ACCESS national infrastructure and the University's DARWIN HPC (level 2 ACCESS) system
- Integration with Dataverse to enable FAIR Principles



Integrated into UD's Science DMZ, with dual redundant 100GB connectivity into Internet2

PI: John Huffman, Information Technologies
Co-PI: Anne Johnson, Library, Museums, and Press
Co-PI: Benjamin Bagozzi, Political Science and International Relations

This project is supported by the NSF through Award No. OAC-2321980

Distributed shared resources to accelerate research and education

https://nrp.ai/

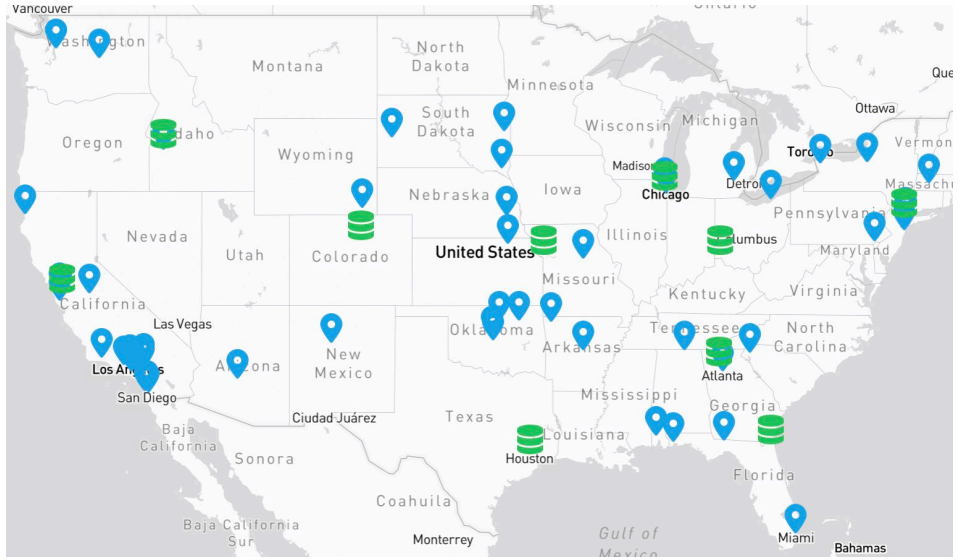
NRP provides access to cutting-edge technologies in AI, high-performance computing, data storage, and networking.

Artificial Intelligence	Conduct AI research, education, classes, and workshops empowered with GPUs, FPGAs, and specialized hardware for advanced AI projects.
Resources for the Classroom	Access GPUs, CPUs, and storage via convenient interfaces like JupyterHub, Coder & LLM service
Advancing AI Infrastructure Ownership	NRP aggregates system & cybersecurity management, and research & educational computing support for non-R1 institutions
Large Data Pools	Share and access your data on NRP's nodes across the world for experiments.

NRP users are students, educators, and researchers from 2-yr and 4-yr institutions, museums, libraries, and healthcare centers,

NRP offers to operate your AI equipment in your data center, thus reducing your TCO of your AI Infrastructure investment

Led by UC San Diego, the U Nebraska-Lincoln, and the Massachusetts Green High Performance Computing Center. Supported by NSF with resource contributions from over 50 institutions.



400+ NRP nodes at 84 organizations, including 21 Points of Presence and 6 international sites, representing over 1,400 GPUs and 20PB of storage.

To learn more, check out NRP training https://nrp.ai/training/

NAIRR Pilot Classrooms

NRP NATIONAL RESEARCH PLATFORM

NRP is a platform for collaborative innovation

- **Shared** hardware, software and models

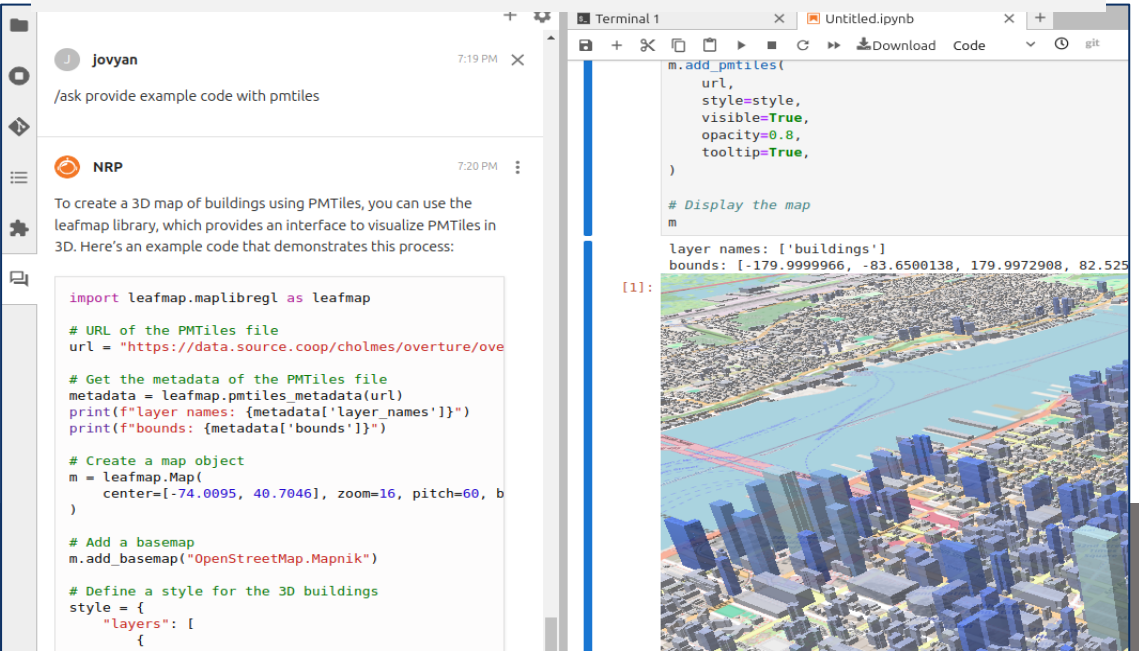
- ❑ Students use Jupyter notebooks
- ❑ Wide variety of GPUs → suitable for classrooms

Supporting
15 NAIRR Pilot
Classrooms

Classroom of **Carl Boettiger**
University of California, Berkeley

- 122 students
- Active learning classroom (NAIRR240249)

Coding with Large Language Models (LLM)



Preparing students for the AI-driven future

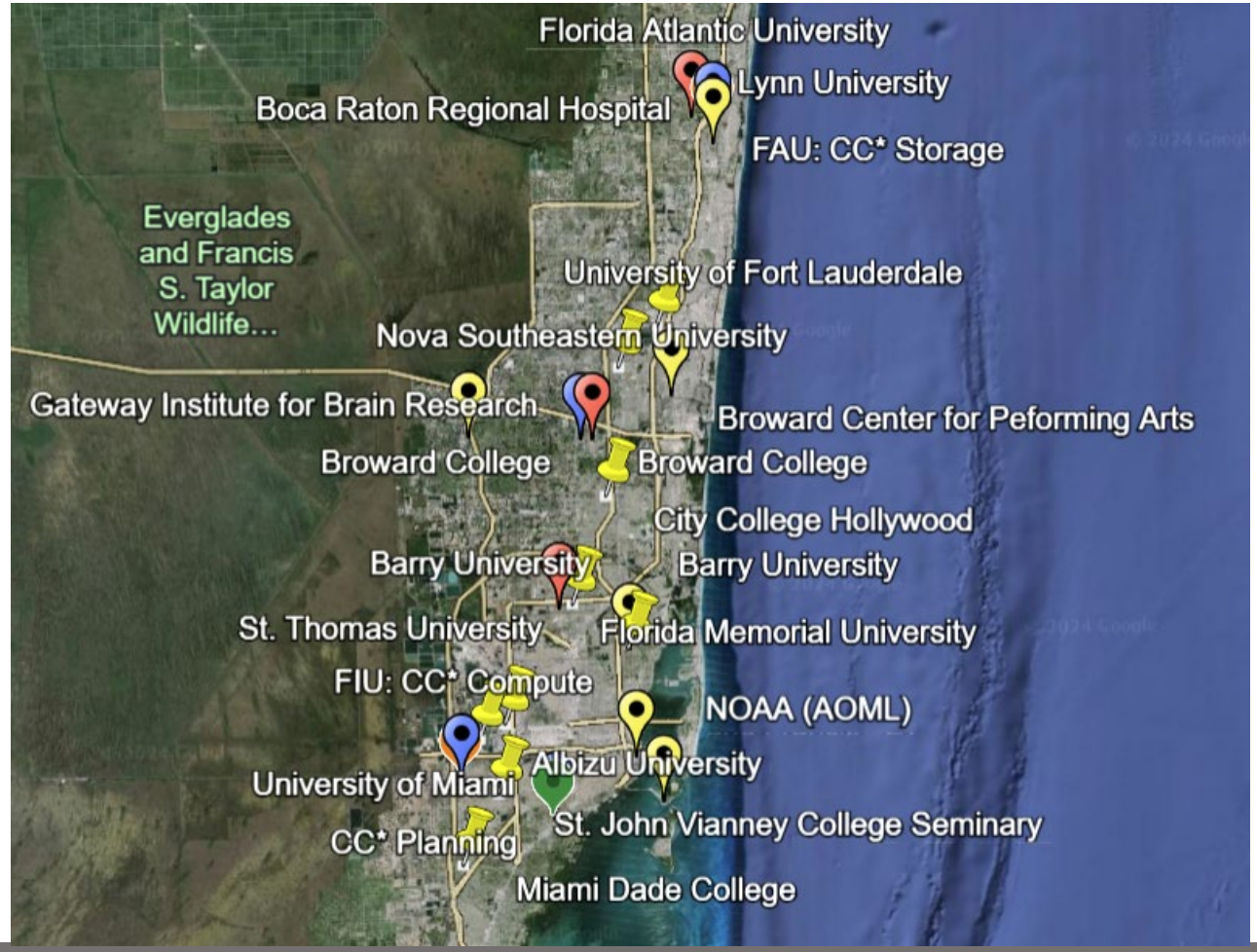
- Hosting open LLM models locally
  → ensures data security and privacy
- Integrated AI with Jupyter notebook
  → code assistant
- Enables students and researchers to easily build applications using LLMs

CA 30x30 Planning & Assessment Prototype using NRP LLMs
https://huggingface.co/spaces/boettiger-lab/ca-30x30

UC San Diego

CC* Planning: South Florida Regional Data Science Cyberinfrastructure

- Regional Partnerships for science and cyberinfrastructure engagement
- Shared Resources across Common Goals
- Future Expertise building
- Economic Innovation
- Repurposed Tools and Knowledgebase



NSF OAC Award #2346318

NV-DICE: Nevada Vision for a co-Developed Impactful Cyberinfrastructure Ecosystem

Challenge Project Seeks to Address:
Planning Research IT for Nevada

- One System, several Institutions
- Historical lack of IT investments
- Leveraging the REN as neutral territory
- Need for RCD community of practice
- Need to assess needs & capabilities

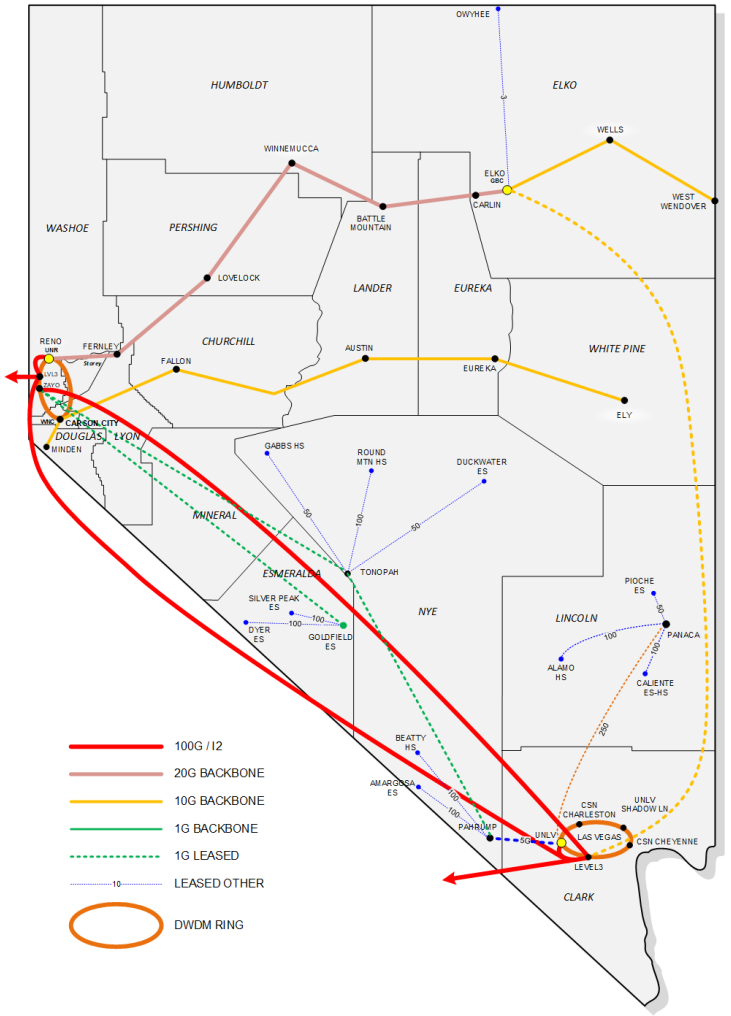
Solution(s) or Deliverables:
Strategic framework

- Statewide RCD professional Office Hours
- Planning workshops
- Institutional reviews/surveys
- Institutional CI Plans
- State CI Plan
- Pilot cooperative technology (IAM, research network, dev environments)

Scientific Impact and Broader Impact: *Focus on Team Science*

NSF OAC Award #2346263

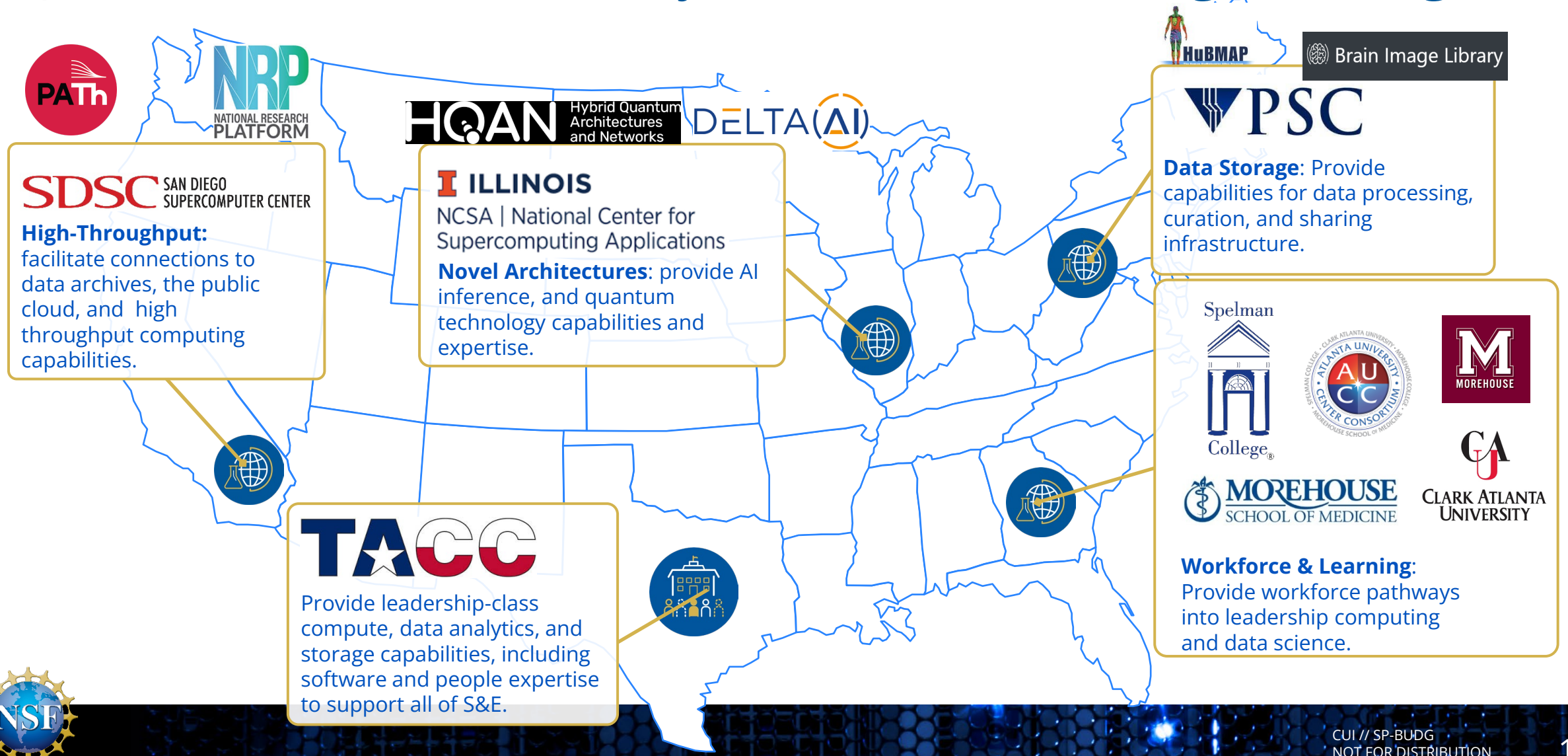
NSHE/SCS NevadaNet 2022



Leadership Class Computing Facility

Distributed Advanced Computing Facility for Science & Engineering

NSF LEADERSHIP-CLASS COMPUTING FACILITY
TEXAS ADVANCED COMPUTING CENTER
THE UNIVERSITY OF TEXAS AT AUSTIN



High-Throughput: facilitate connections to data archives, the public cloud, and high throughput computing capabilities.

Novel Architectures: provide AI inference, and quantum technology capabilities and expertise.

Data Storage: Provide capabilities for data processing, curation, and sharing infrastructure.

Workforce & Learning: Provide workforce pathways into leadership computing and data science.

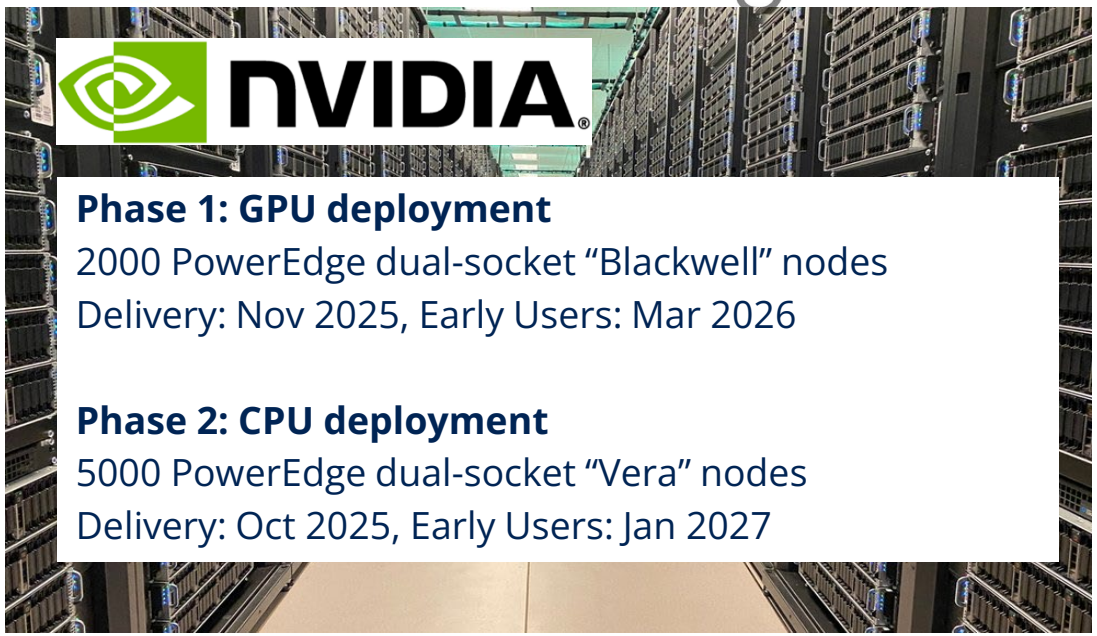
Provide leadership-class compute, data analytics, and storage capabilities, including software and people expertise to support all of S&E.

NSF LEADERSHIP-CLASS COMPUTING FACILITY
TEXAS ADVANCED COMPUTING CENTER
THE UNIVERSITY OF TEXAS AT AUSTIN

First installations support core Capability for Large-Scale Simulation, AI and Data Analytics

DELL Technologies

NVIDIA



Phase 1: GPU deployment
2000 PowerEdge dual-socket “Blackwell” nodes
Delivery: Nov 2025, Early Users: Mar 2026

Phase 2: CPU deployment
5000 PowerEdge dual-socket “Vera” nodes
Delivery: Oct 2025, Early Users: Jan 2027

LCCF will enter production in Q2 FY 2027.
Operating cost: $40M/year
Duration: 10 years

- Primary partition will be **batch-based** resource
- Secondary partition will support **interactive use** and **persistence services**
- Software stack for this system will support **containers** and “**cloud-like**” programming models as well as more traditional scientific computing
- **390PB** of **flash** disk will provide both scratch storage and a space for publishing data collections.
- **800PB archive** system will provide long-term storage.
  - Replacing Ranch archive system

LCCF is a “Facility for Facilities”

NSF LEADERSHIP-CLASS COMPUTING FACILITY
TEXAS ADVANCED COMPUTING CENTER
THE UNIVERSITY OF TEXAS AT AUSTIN

ICECUBE NEUTRINO OBSERVATORY

- 150TB data stored at TACC
- Replaced Data Repo when DOE ended partnership
- Part of LCCF Characteristic Science Application (CSA) team

US ATLAS

US CMS

- 500TB data flow for ATLAS
- 3.34PB data flow for CMS
- Over 6M node hours consumed on Frontera to date

OCEAN OBSERVATORIES INITIATIVE

- Partner in OOI operations award to provide backup storage
- 200TB data transferred to date

NHERI
Natural Hazards Engineering Research Infrastructure

- DesignSafe-CI (NHERI awardee) – 11 years in operations
- Provides CI, data repo, compute capability for NHERI experimental facilities, simulation center, etc.

ngvla

- Contributing to design of new NSF radio telescope major facility
- LCCF part of data processing facility - $275M (CDR estimate)

NCAR
NATIONAL CENTER FOR ATMOSPHERIC RESEARCH

- Earth systems modelling group part of LCCF CSA
- Close collaboration with Wyoming Supercomputing Center
- Exploring possibility of proving data backup for NCAR

Opportunity of LCCF to become an anchor for computing and data activities for NSF

- A decade long commitment to an advance computing and data facility is an opportunity for our community
- Going forward we will be having discussions with the community on how to leverage this facility for other OAC and NSF activities

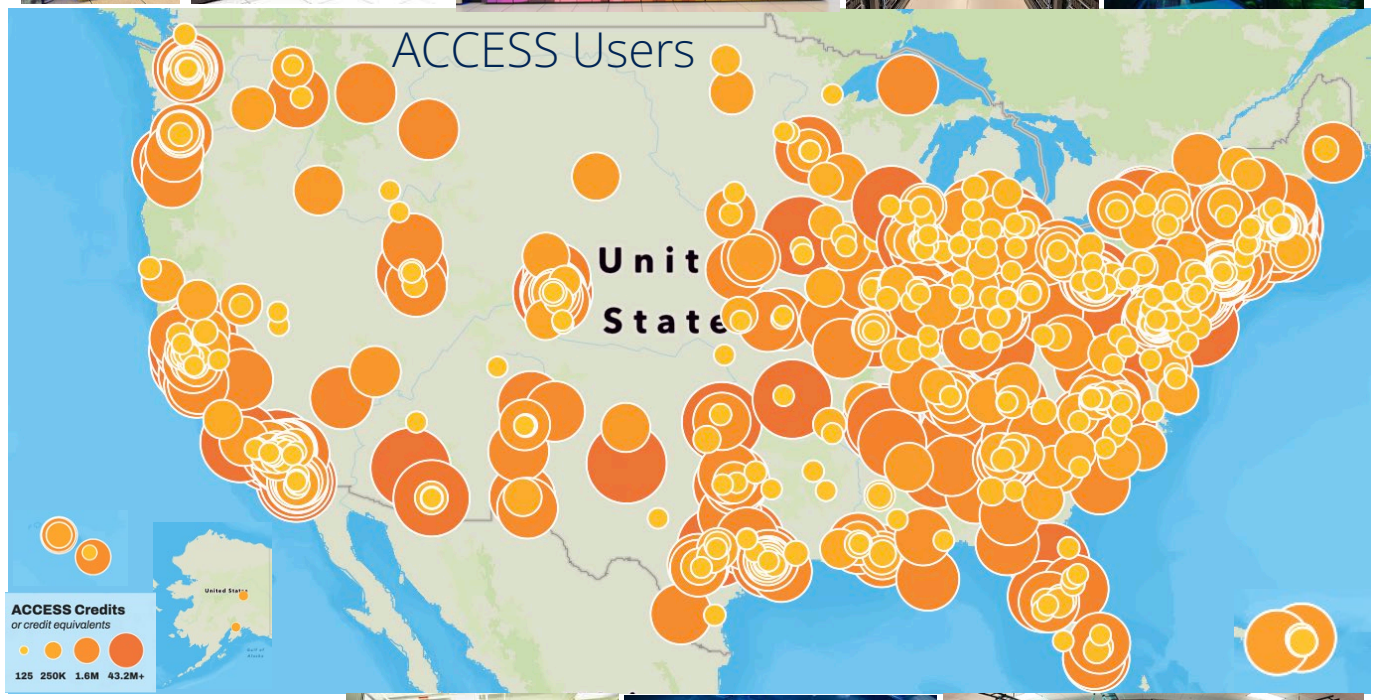
ACCESS and the National AI Research Resource

ACCESS program provides access to advanced computing and data resources

ACCESS | Advancing Innovation

Provides computing access and services to 20K researchers and students across the country

Small ‘explore’ allocations available with just a paragraph describing what you want to accomplish



CloudBank

access-ci.org

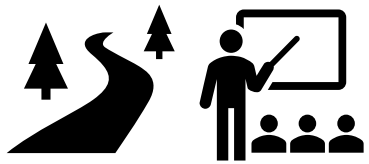
NAIRR Pilot Completed! We built the key foundations needed for a scalable NAIRR And are moving to the full NAIRR

Establish strong govt-industry partnership

In-kind contributions of most advanced resources

Integrate & deliver contributed resources

Establish single access point for US researchers.



Expand education & AI resource training pathways

Launch NAIRR Classroom, extended reach, build community

Lay foundations for scalable NAIRR operations

Assess gaps, build out operations and data infrastructure

Results				
	14 agencies **28** industry and non-profit partners	**620+** projects **50** states + DC and PR **61** NAIRR Classrooms	Integrated support & training programs w/ **public** & **private** partners	**10** inaugural NAIRR datasets, **NAIRR Operations Center solicitation released**

NAIRR Operations Center Solicitation Released

NSF News

NSF announces funding to establish the National AI Research Resource Operations Center

September 3, 2025

- $35M 5 year award
- Foundational activities
  - Organizational leadership
  - Building NAIRR Capabilities and Community
  - Interfacing with NAIRR Pilot Teams
- Potential to grow scope with strong performance and available funding
- Opportunity open to IHE, non-profits & FFRDCs and private-sector companies after discussion with program officer

- https://www.nsf.gov/events/nsf-nairr-oc-solicitation-webinar/2025-09-23
- https://www.nsf.gov/funding/opportunities/nairr-oc-foundations-operating-national-artificial-intelligence/nsf25-546/solicitation

LOI: Dec. 15th
Deadline: Feb 4th

National AI Research Resource (NAIRR) – The infrastructure to drive US AI innovation, discovery, and national competitiveness

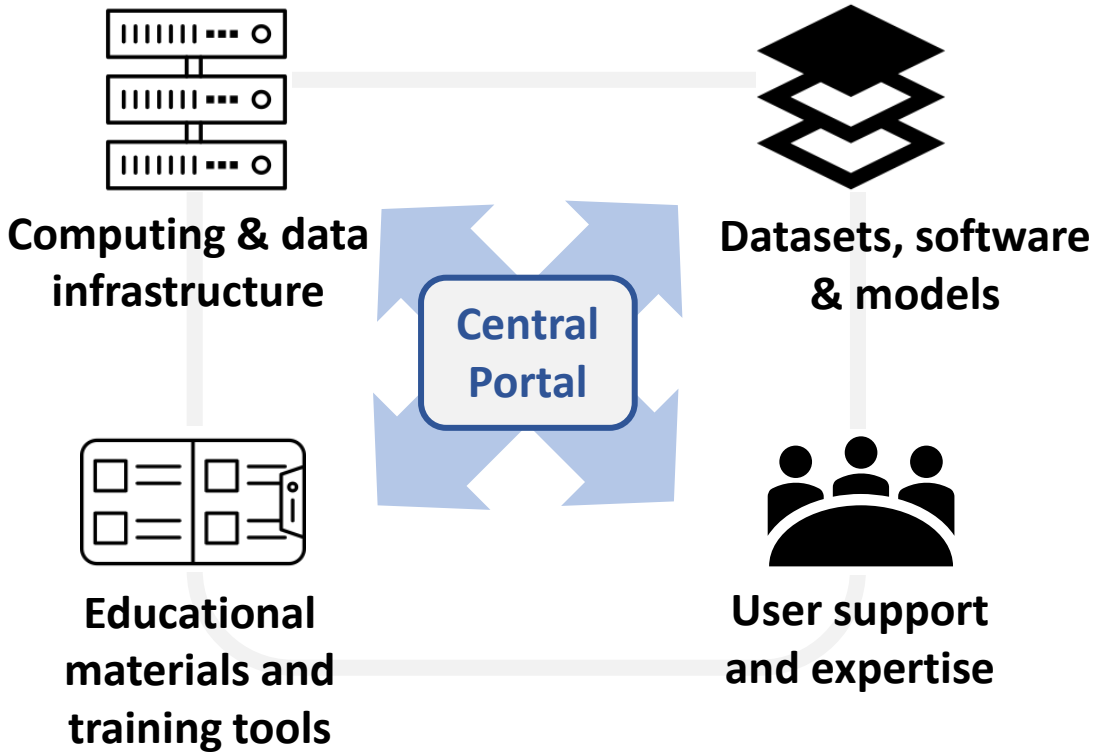
The challenge: To sustain US global AI leadership and unlock AI opportunity across society we need:

- A skilled AI workforce; and
- To continue driving fundamental innovations

The opportunity: Build a competitive AI ecosystem by enabling all researchers and educators across the country to:

- Drive national and regional AI innovation across sectors to spark new solutions, products, businesses and jobs; and
- Train the AI workforce of the future

NAIRR Architecture



NAIRR Pilot
nairrpilot.org

New Opportunity

DEEP PARTNERSHIPS

Request access to deeper collaborations directly with select partner resources.

Apply Now

New Opportunity

START-UP PROJECTS RESOURCES

Request access to AI resources for start-up projects.

Apply Now

Requires Application

RESEARCH RESOURCES

Access high-performance computing platforms tailored for AI research.

Apply Now

Requires Application

EDUCATIONAL RESOURCES

Request access to educational platforms (such as computational notebooks).

Apply Now

Freely Accessible

DATA, MODELS, AND MORE

Browse curated datasets, pre-trained models, and additional tools for training and testing your AI systems.

View Resources

BECOME A VOLUNTEER REVIEWER

The NAIRR Pilot relies on engaged volunteers to power the proposals review. Please apply if you're interested in contributing to this critical process.

Apply Now

NAIRR Pilot

NAIRR Secure: demonstrations to probe use of privacy/security-preserving infrastructure and high-quality AI-ready controlled-access data assets

NAIRR Secure Working group led by: DOE and NIH

Synthetic Data Generation with Large Real-World Data

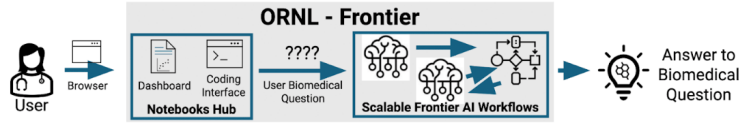
Lisa Mirel (NSF/NCSES), May Aydin (NSF/NCSES), Ken Gersing (NIH/NCATS), Sam Michaels (NIH/NCATS)

MOSSAIC

Modeling Outcomes Using Surveillance Data & Scalable Artificial Intelligence For Cancer

Democratizing AI for cancer with privacy preserving synthetic data generation for cancer case identification

Leads: Heidi Hanson, John Gounley, Patrycja Krawczuk, Adam Spannaus, Christopher Stanley, Jiayi Wang, Edmon Begoli

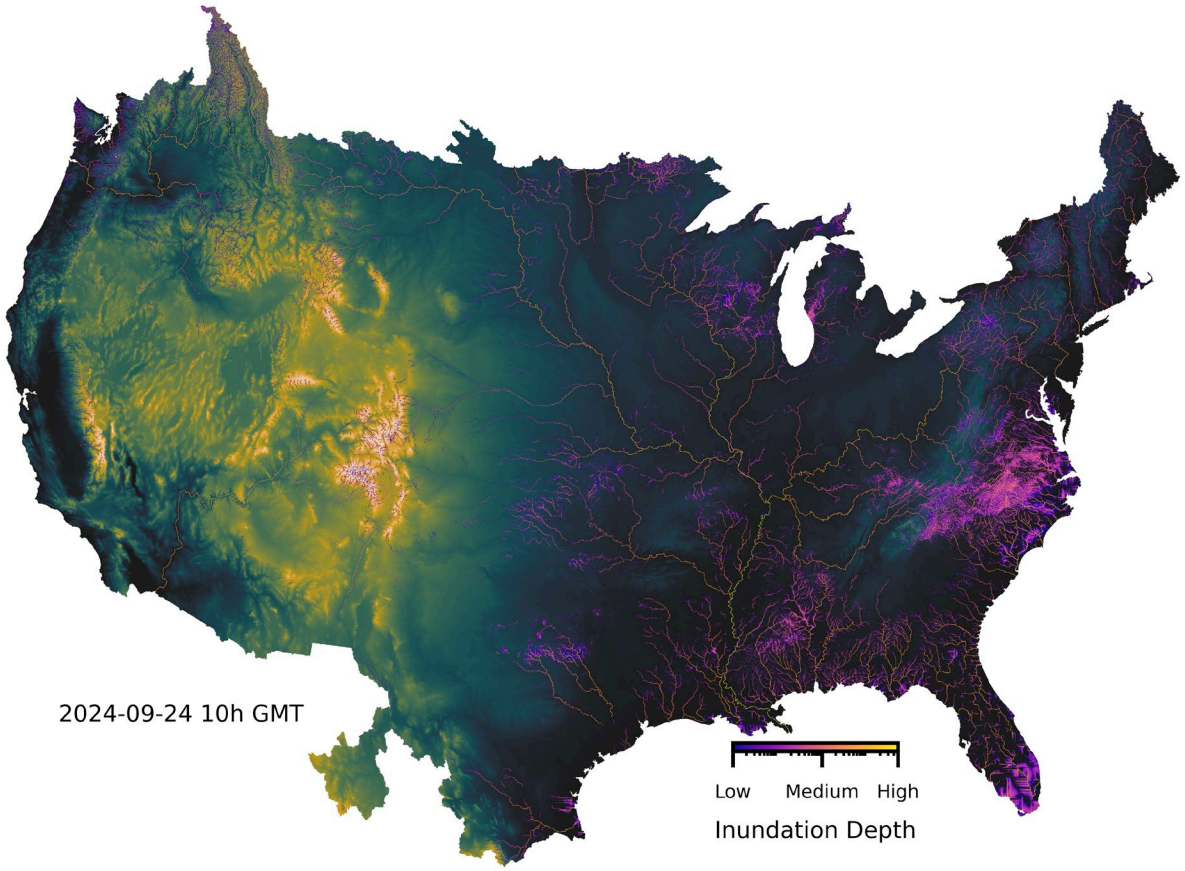


Althena: Institutional LLM Assisted Biomedical Question Answering

Leads: Sam Michael (NCATS) & Verónica Melesse Vergara (ORNL)

National Hydrology AI Digital Twin Pilot

PI: Laura Condon (University of Arizona) Co-PI: Reed Maxwell (Princeton University)



Example output from the hydrology digital twin showing surface water depth over the US

Project Goals and Significance

- Create the first digital twin of the complete terrestrial hydrologic cycle for the US.
- Generate physically accurate national watershed conditions (both surface and subsurface) in real time.

Specific Accomplishments and Highlights

- Built a novel hybrid ML emulator model that combines physics and machine learning to accelerate simulations while ensuring accuracy, stability, and mass conservation.
- Built ML-based downscaling workflows to create high resolution (30-100m) national maps of surface water and groundwater.
- Piloted a workflow for completing near real time simulations.

Importance of NAIRR Pilot Resources

- We use NAIRR computing (e.g. Anvil) to generate a 'library' of physics-based simulations which are used to train our ML emulators and to initiate our downscaling workflows.
- NAIRR resources enable the evolution of our national hydrologic model from a research tool to an operational platform.

This material is based upon work supported by the National Science Foundation under Grant No. 2134892

AI-Driven Decision Support in Battlefield Medicine

Team Chiron
Carnegie Mellon University Robotics Institute

DARPA: **HR00112420329**

Elenberg, K. Carnegie Mellon University. NAIRR240073

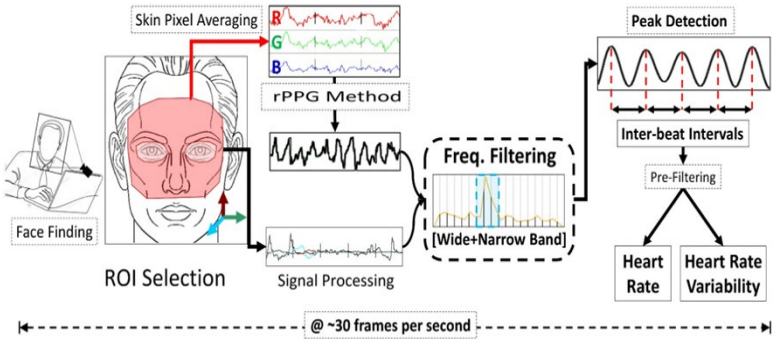
Research Challenge

- Autonomous triage requires breakthrough innovations to noninvasively identify and classify human injuries in the field, with no physical contact.
- Building effective command and control systems that can support decision making and coordination and information management.

Progress Results

- AI-Driven Decision Support in Battlefield Medicine
- On PSC Bridges-2, trained real-time heart rate estimation algorithms using 2/3 of allocated compute
- Leveraged multimodal inputs and demonstrated signal resilience under occlusion, low-light, and motion
- Requested increased compute and storage to support expanded triage data sets

Resource: Bridges-2 at Pittsburgh Supercomputing Center



Schematic overview of rPPG pipeline. (Gudi, Bittner, & van Gemert, 2020)

Real-Time Multimodal Heart Rate Estimation
Thermal + RGB + RADAR fusion

Trained and validated multiple rPPG signal models under realistic, noisy, and dynamic field conditions (e.g., occlusion, motion, light variation).

NAIRR Support for AI for US Agricultural Resilience

Ganapathysubramanian, B. Iowa State University

Research Challenge

- Create accurate AI tools for the classification of agriculturally relevant insects, weeds and diseases and advance the science of decision support for US agricultural growers and breeders.
- Impacts include reduced chemical usage, reduced impact on beneficial species, increased profitability.

Progress Results

- Integrated insect classification tool with LLMs for decision support, e.g. determining whether a species is an agricultural pest or not with stated uncertainty
- Tested against expert assessments to check accuracy
- Developed capability to accurately count imaged species, key to decision support and taking an action, e.g. Localized spraying.

Resource: Frontera at UT Austin and NVIDIA DGX Cloud

Lygus Nymph

Lygus Adult

Spotted Lantern Fly Nymph

Source: https://www.nps.gov/vafo/learn/nature/lanternfly.htm

Spotted Lantern Fly Adult

Source: https://en.wikipedia.org/wiki/Spotted_lanternfly

Generative Models of Neuroimages for Personalized Assessment of Risk for Alzheimer's Disease

Irimia, A. University of Southern California. NAIRR240132

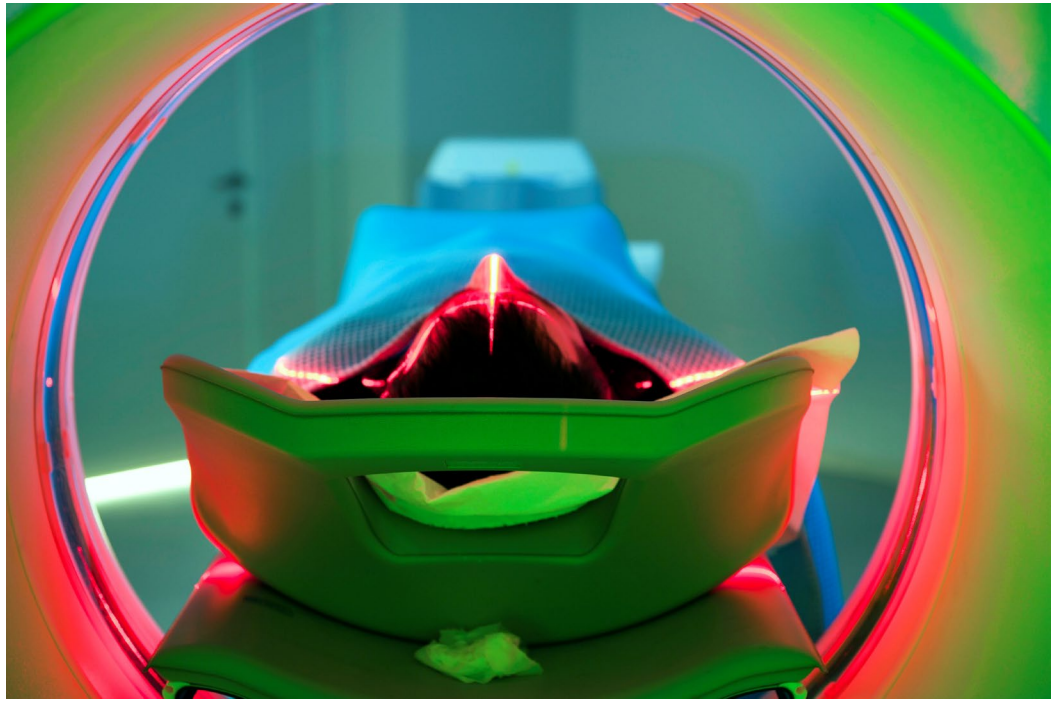
Research Challenge

- Develop generative AI models to help forecast how an individual's brain is likely to age, and to predict the onset of cognitive impairment and dementia

Progress Results

- Currently creating models that can be used to map myelin (a fatty substance which forms sheaths around neurons, which degrades in patients with Alzheimer's disease and related dementias [ADRD])
- The maps will be able to predict an individual's ADRD risk using a T1-weighted MRI, ultimately saving time and money while simultaneously assisting doctors on the effectiveness of patient treatments

NAIRR Pilot Resources: TACC Vista (NVIDIA GH100 Grace Hopper Superchip)



Stock MRI Image.

Audio Deep Fake Detection for Forensics and Security

Duan, Z. University of Rochester. NAIRR240152

Research Challenge

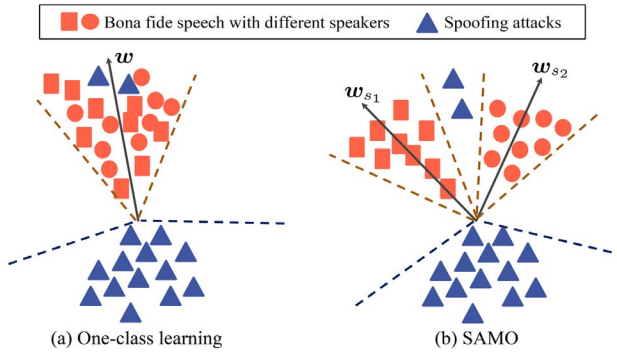
- Improve the generalization ability of audio-visual deepfake detection under various scenarios

Progress Results

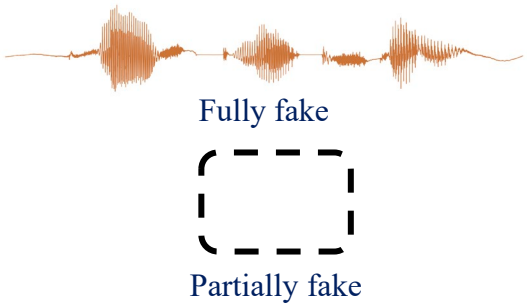
- Proposed a multi-stream Audio-Visual Deepfake Detection (AVDD) system based on one-class learning
- Improved our Speech Attractor Multi-center One-class (SAMO) learning algorithm for deepfake detection
- Identified a novel partial deepfake detection scenario accompanied by a newly curated dataset PartialEdit

Resources: Delta system at U of Illinois Urbana-Champagne

(a) Proposed Audio-Visual Deepfake Detection (AVDD) Framework with one-class learning



(b) Algorithm improvement for Speech Attractor Multi-center One-class (SAMO) learning

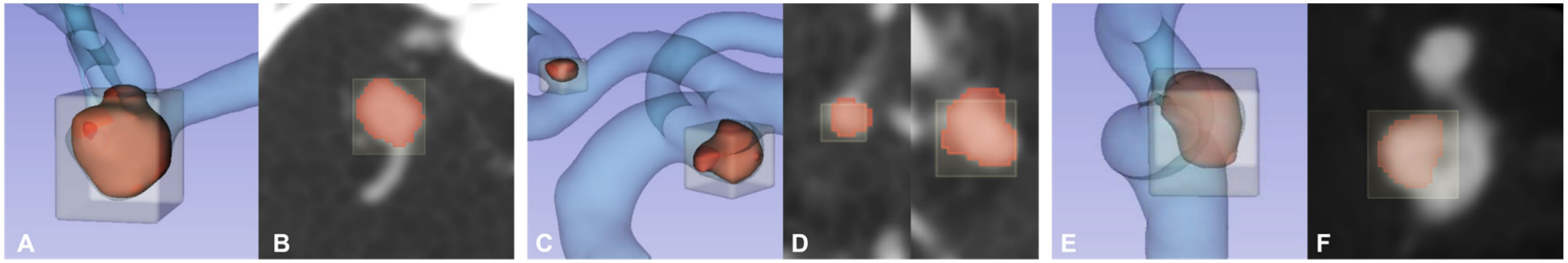


(c) New scenario: Partial Deepfake

Kyungbok Lee, You Zhang, and Zhiyao Duan, "A multi-stream fusion approach with one-class learning for audio-visual deepfake detection," in ***Proc. IEEE International Workshop on Multimedia Signal Processing (MMSP)***, 2024.

Detection of Intracranial Aneurysms

Jiang, H. Northeastern University. NAIRR240236



3D view and corresponding CTA images. Red: ground-truth aneurysm; Yellow: algorithm output; Blue: artery segmentation. Top row (all TP): Right MCA aneurysm (A, B), anterior communicating artery aneurysm (smaller) and left posterior communicating artery aneurysm (larger) (C,D), left ICA aneurysm (E, F).

Research Challenge

- Manual detection of intracranial aneurysms in computed tomography (CT) scans is a complex, time-consuming task even for expert clinicians. Automation is also challenging especially because of their small size (compared to scans) and limited labeled data for training.

Progress Results

- Train a Transformer model to use large-scale unlabeled data. Compared with SOTA aneurysm detection models, our approach gains +4-8% absolute Sensitivity at a false positive rate of 0.5.

NAIRR Pilot Resource: Cloudbank and Microsoft Azure

Award: NIH R01 1R01LM013891-01A1

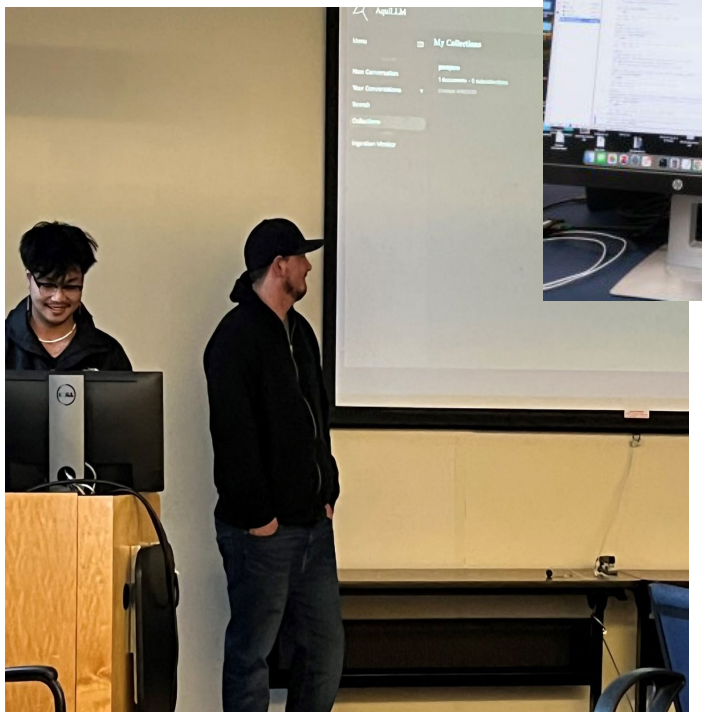
NAIRR Classroom – Bringing Resources and Training Opportunities to Educators and Students

- Goal: pilot training the next generation workforce in AI technologies and resources
- Supports **40** classroom educators and ~**1500** students across the country
- Supporting 7 conferences coordinated by CRA, bringing together educators enabling AI in classrooms
  - Target communities for conferences include emerging research, primarily undergraduate serving, community colleges and HBCUs

Bernadette Boscoe from Southern Oregon University and Nicholas Rahimi from University of Southern Mississippi show casing their NAIRR Classroom projects at the NSF Congressional AI Education Showcase

NAIRR Classroom: Building AI-enabled Data Visualization Interfaces

PI: Bernie Boscoe, NAIRR240359
Southern Oregon University



Course overview/use of resources

- Expand a machine learning course to scale up to larger computational resources, using Jetstream2 as an educational platform that provides access to GPUs, Jupyter notebooks, and components for student submissions, feedback, and evaluation

Highlights/Impact

- Connecting students with cutting-edge AI-enabled tools (machine-learning, RAG, LLM) and supercomputing resources.
- Research-driven collaboration through partnership with SOU environmental science for field use (Karen Mager), UCLA astrophysics Data Lab (Tuan Do), and Cornell (Amy Cheatle)

NAIRR Pilot Resource: Indiana Jetstream2 GPU

Upcoming Solicitations

Upcoming solicitation deadlines

- Cybertraining, Deadline Jan. 15, 2026
- Cybersecurity Innovation for Cyberinfrastructure (CICI), Deadline Jan. 26, 2026
- Findable Accessible Interoperable Reusable Open Science (FAIROS), Deadline Apr. 8, 2026
- Integrated Data Systems and Services, Deadline July 28, 2026

- Prepare, nurture, and grow the national scientific *research* workforce for *creating and utilizing* advanced cyberinfrastructure
- Deadline third Thursday in January annually

Contributors who develop new capabilities

Users who are Researchers and Educators who exploit new capabilities

Cybersecurity Innovation for CyberInfrastructure (CICI)

Mission:

support trustworthy scientific discovery and innovation by enhancing the

security and privacy of *scientific cyberinfrastructure*.

CICI cybersecurity innovations should be tailored for scientific cyberinfrastructure and enable trustworthy reproducible science

Four Program Tracks

- Usable and Collaborative Security for Science (UCSS)
- Reference Scientific Security Datasets (RSSD)
- Transition to Cyberinfrastructure Resilience (TCR)
- Integrity, Provenance, and Authenticity for Artificial Intelligence Ready Data (IPAAI)

Program Solicitation NSF 25-531
Next Deadline: January 21, 2026
Third Wednesday in January, Annually Thereafter

Findable Accessible Interoperable Reusable Open Science (FAIROS) Program Solicitation (NSF 25-533)

Supports sustainable open science and data management by advancing research, education and cyberinfrastructure while encouraging collaboration and reducing barriers to data sharing.

- Advance sustainable multi-disciplinary research data management (RDM) and open science ecosystem.
- Advance FAIR data portals, metadata standards, research data commons, and RDM in advancing open science.
- Lower barriers to accessing, managing, sharing, and storing data within and across multiple disciplinary domains, irrespective of data size.

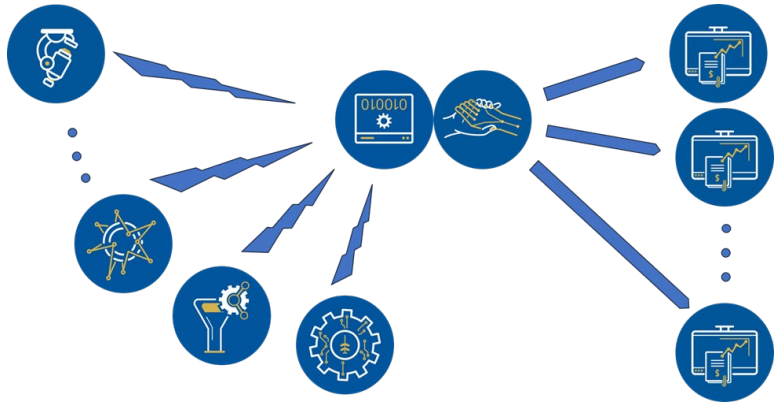
Includes two research tracks of focus: 1. *Disciplinary Improvements* or 2. *Cross-Cutting Improvements*

Supported by multiple NSF Directorates

Award size: up to $600k for up to 3 years
Deadline: April 8, 2026, Second Wednesday in April, Annually Thereafter
https://www.nsf.gov/funding/opportunities/fairos-findable-accessible-interoperable-reusable-open-science

NSF Integrated Data Systems & Services (IDSS)

Support for operations-level national scale systems and services that advance and facilitate open, data intensive, and artificial intelligence-driven science and engineering research, innovation, and education.



- Connect data sources with AI/analytic environments and data-intensive workflows
- Manage the data lifecycle at a national scale
- Does not support permanent long-term storage, curation of research data, or projects that focus on a single science domain or application

Category I: National-scale systems and services ($10M to $30M for up to 5 years)

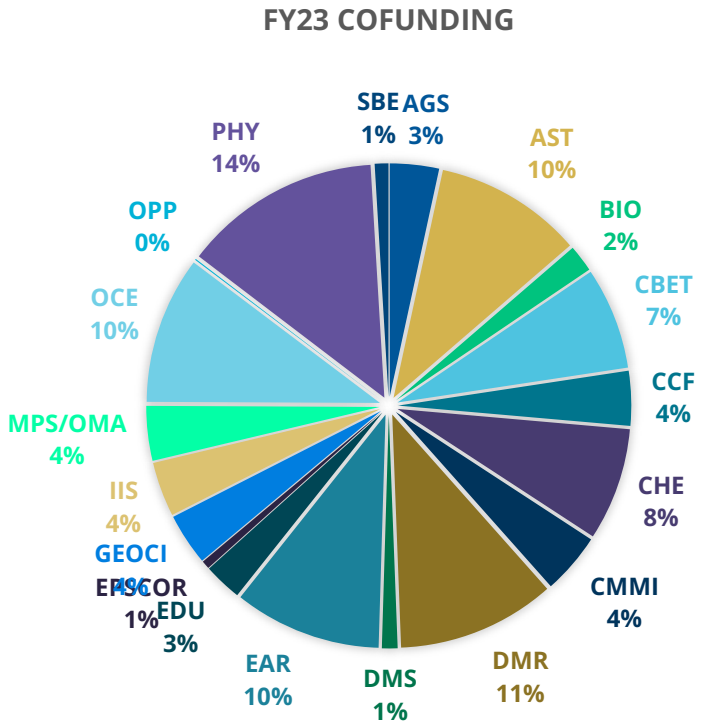
Category II: Transition of regional/pilot to national-scale ($9M for up to 3 years)

Category III: Planning grants ($500,000 for up to 2 years).

Deadline July 28, 2026

Cyberinfrastructure for Sustained Scientific Innovation (CSSI)

- Development and deployment of robust, reliable and sustainable **data and software** cyberinfrastructure
- Innovative capabilities towards sustained scientific innovation and discovery in **one or more areas of science and engineering**.
- Provides a **cross-directorate** opportunity to advance common approaches to sustain and innovate research cyberinfrastructures
- Deadline December 1, 2025



Project Class	Description
Elements	Small groups. (Awards <= $600K, up to 3 years)
Framework Implementations	Larger, interdisciplinary teams, resulting in a sustainable community framework. (Awards between $600K - $5 Million, between 3-5 years)
Transition to Sustainability	A well-defined sustainability plan for long-term impact. (Awards <= $1M, <2 years)

- Single class of projects with a maximum budget of up to $1M and up to 4 years
- Target dates only – no deadline
- A broad set of areas
- More information via email
- See the solicitation for area details and email addresses: Google “nsf cise future core” or “nsf 25-543”

Questions and Discussion

Amy Apon, awapon@nsf.gov
Office of Advanced Cyberinfrastructure
National Science Foundation