

Preparing your NAIRR Pilot Project Request

To request access to NAIRR Pilot resources, you must prepare a description, no longer than three (3) pages, of your proposed work. Do not include any proprietary information in proposals, since your request will be reviewed by staff from a number of participating sites.

Eligibility

This call is generally open to meritorious advanced computing proposals by US-based researchers and educators. Note that the individual resources available via this call have differing eligibility rules. Assignment of supported proposals will be guided by these constraints.

Review Criteria and Project Expectations

This initial call for allocations emphasizes interest in projects focused on advancing **Safe, Secure and Trustworthy AI**, including but not limited to projects with the following types of research aims:

- Testing, evaluating, verifying, and validating AI systems.
- Improving accuracy, validity, and reliability of model performance, while controlling bias.
- Increasing the interpretability and privacy of learned models.
- Reducing the vulnerability of models to families of adversarial attacks.
- Advancing capabilities for assuring that model functionality aligns with societal values and obeys safety guarantees.

Other projects that align with the research thrusts of the NAIRR Pilot may secondarily be considered for allocation, including in the areas of healthcare, environment and infrastructure sustainability, and AI education (see further details at <https://nairrpilot.org/about>), as well as projects in other areas of research and R&D.

The proposals will be evaluated on the following criteria:

- Alignment with the thematic focus defined for this call
- Project readiness and potential for near-term progress
- Feasibility of the technical approach
- Need for advanced research computing resources available via this call
- Advanced research computing and data management knowledge and experience of the proposing team
- Estimated computing and data resource requirements

Please note the following parameters and expectations:

- Projects supported by the NAIRR Pilot are intended to be completed within 6 months. Projects with longer-term timelines should contact the NAIRR Pilot at help@allocations.nairrpilot.org to be referred to existing proposal and allocation opportunities.
- All supported projects will have the name of the principal investigator, affiliation, project title and project abstract posted to the NAIRR Pilot website.
- All project PIs will be added to a NAIRR Pilot mailing list to foster a community of NAIRR Pilot researchers.
- Project PIs are expected to provide brief (~2 paragraphs) project updates 1-month and 3-months into the project, and a final report (three pages) after award.
- It is expected that teams who receive NAIRR Pilot access will publish their results in the open scientific literature or otherwise disseminate publically. The NAIRR Pilot wishes to catalyze open, pre-competitive results that can impact the future of the NAIRR. **Because of the strong public component of the NAIRR, all project results must be open and publishable.**

If a principal investigator (PI) believes that a project will result in commercializable intellectual property (IP), the PI should work directly with the relevant advanced computing resource providers that can accommodate commercializable IP requirements.

Project Description Outline

To ensure your request can be properly reviewed and awards be directed to the appropriate resource(s), your description should include the sections outlined here.

A. Scientific/Technical Goal

Describe how your proposed work contributes to the thematic focus area.

- What is the scientific/technical goal?
- What is the plan and timetable for getting to the goal?
- What is the expected period for performance (up to six months)?
- Where do you plan to publish or otherwise publicly disseminate your results and in what timeline?

B. Estimate of Compute, Storage and Other Resources

To the extent possible, provide an estimate of the scale and type of the resources needed to complete the work. The information in the Resources section below is available to help you answer this question. Please be as specific as possible in your resource request along with data supporting the request made. Your proposal should indicate your preferred resource (if any) and your first alternate choice, should there not be sufficient availability on your preferred resource. **Please select only your preferred resource in the online submission form.**

- Are there specific computing architectures or systems that are most appropriate (e.g. GPUs, large memory, large core counts on shared memory nodes, etc.)
- How much computing support will this effort approximately require in terms of core, node, or GPU hours? How does this break down into the number of independent computations and their individual compute requirements?
- How distributed can the computation be, and can it be split across multiple resources?
- Can this workload execute in a cloud environment?
- Describe the storage needs of the project.
- Does your project require access to any public datasets? If so, please describe these datasets and how you intend to use them.

- Does your project require access to specific software packages? If so, describe this software (including whether it is open source or licensed) and how you intend to use it.

C. Support Needs

Describe whether collaboration or support from staff at various NAIRR Pilot Resource Providers (e.g. Commercial Cloud Providers, academic research computing centers, data or tool providers) will be essential, helpful, or unnecessary. Estimates of necessary application support are very helpful. **Teams should also identify any restrictions that might apply to the project, such as export-controlled code, ITAR restrictions, proprietary data sets, regional location of compute resources, or personal health information (PHI) or HIPAA restrictions.** In such cases, please provide information on security, privacy, and access issues.

D. Team and Team Preparedness

Summarize your team's qualifications and readiness to execute the project both in using the methods proposed and the resources requested.

- What is the expected lead time before you can begin using the resource?
- What systems have you recently used and what was the scale of the applications?
- Given that some resources are at federal facilities with restrictions, please provide a list of the team members that will require accounts on resources along with their citizenship.

Supporting Documents

In addition to the main proposal document, please also prepare a CV or other biographical sketch document for the project team lead. Biosketch documents prepared for federal funding agency grant proposals would satisfy this requirement.

Document Formatting

While readability is of greatest importance, documents must satisfy the following minimum requirements. Documents that conform to National Science Foundation proposal format guidelines will satisfy these guidelines.

- **Margins:** Documents must have 2.5-cm (1-inch) margins at the top, bottom, and sides.
- **Fonts and Spacing:** The type size used throughout the documents must conform to the following three requirements:
 - Use one of the following [typefaces](#) identified below:
 - Arial 11, Courier New, or Palatino Linotype at a font size of 10 points or larger;
 - Times New Roman at a font size of 11 points or larger; or
 - Computer Modern family of fonts at a font size of 11 points or larger.
 - A font size of less than 10 points may be used for mathematical formulas or equations, figures, table or diagram captions and when using a Symbol font to insert Greek letters or special characters. PIs are cautioned, however, that the text must still be readable.
 - Type density must be no more than 15 characters per 2.5 cm (1 inch).
 - No more than 6 lines must be within a vertical space of 2.5 cm (1 inch).
- **Page Numbering:** Page numbers should be included in each file by the submitter. Page numbering is not provided by the submission system.
- **File Format:** Only PDF file formats are accepted.