

Connecticut AI Alliance (CAIA)

AI Computing Access Program

Application Form: Faculty & Graduate Research Support

Award Period: Summer 2026 – Fall 2026 | Total Track Allocation: ~\$300,000

Program Overview

The Faculty & Graduate Research Support track provides cloud computing credits to accelerate AI-related research conducted by faculty and their graduate students at CAIA member institutions. Awards support access to GPU computing resources (via Google Colab Pro/Pro+ or JupyterHub) and/or LLM API access (via Google Vertex AI). This track is designed for active research projects—including thesis and dissertation work—that require substantial computing resources beyond what is available through institutional infrastructure. Applications are evaluated by a peer-review committee of CAIA faculty.

Eligibility: Full-time or part-time faculty at CAIA member institutions may apply as Principal Investigator (PI). Graduate students may be listed as co-investigators but may not serve as PI. A current list of member institutions is available at ctaialliance.org.

Section 1: Principal Investigator (PI) Information

1. Full Name

2. Email Address

Please use your institutional email.

3. CAIA Member Institution

Select your institution from the dropdown list.

4. Department / Program

5. Title / Rank

e.g., Assistant Professor, Associate Professor, Professor, Research Scientist

6. Phone Number

Optional. For follow-up communication if needed.

7. Personal Website or Google Scholar Profile URL

Optional. Helps reviewers understand your research background.

Section 2: Research Team

8. Co-PI(s) (if applicable)

List name, title, institution, and email for each co-PI. Leave blank if not applicable.

9. Graduate Student Researchers

List each graduate student who will use the computing resources. Include name, degree program (e.g., MS, PhD), and expected role.

10. Total number of personnel who will actively use the computing resources

Include PI, co-PIs, graduate students, and any undergraduate research assistants.

Section 3: Research Project Description

11. Project Title

12. Research Area(s) (Select all that apply)

- ☐ Natural Language Processing / Large Language Models
- ☐ Computer Vision / Image Processing
- ☐ Reinforcement Learning / Multi-Agent Systems
- ☐ AI Safety, Security, & Adversarial ML
- ☐ Healthcare / Biomedical AI
- ☐ Robotics / Autonomous Systems
- ☐ AI for Science (climate, materials, physics, etc.)
- ☐ AI for Education / EdTech
- ☐ Generative AI / Foundation Models
- ☐ Graph Neural Networks / Knowledge Graphs
- ☐ Fairness, Accountability, & Transparency
- ☐ Other (please specify below)

13. Project Abstract

Provide a concise summary of the research objectives, methodology, and significance. (400 words max)

14. How are cloud computing resources essential to this research?

Explain why institutional computing resources are insufficient and what cloud access will enable that is not currently possible. (250 words max)

15. Current Status of the Research

- ☐ New project – not yet started
- ☐ Early stage – preliminary results or pilot data collected
- ☐ In progress – active experiments requiring additional/scaled compute
- ☐ Thesis/Dissertation research – graduate student milestone work

16. Expected Project Timeline

Indicate when computing resources will be actively used.

- ☐ Summer 2026 only
- ☐ Fall 2026 only
- ☐ Both Summer + Fall 2026

17. Target Venues for Dissemination

List conferences, journals, or workshops where you plan to submit results. (e.g., NeurIPS, AAAI, ACL, IEEE TPAMI, UAI, CAIA Research Symposium)

Section 4: Computing Resource Requirements

18. What type(s) of computing resources are you requesting? (Select all that apply)

- ☐ GPU Computing – Google Colab Pro/Pro+
- ☐ GPU Computing – JupyterHub (managed cluster)
- ☐ LLM API Access – Google Vertex AI

19. Describe your computational workloads in detail.

Include: model architectures (e.g., Transformer, CNN, GNN, diffusion model), dataset characteristics (size, modality, source), training strategy (from-scratch, fine-tuning, RLHF, LoRA), estimated GPU-hours, memory requirements (VRAM), and any multi-GPU or distributed training needs. (400 words max)

20. GPU Hardware Preferences (if applicable)

Select the minimum GPU tier required for your workloads.

- ☐ T4 (16 GB VRAM) – suitable for inference, small model training
- ☐ A100 (40 GB VRAM) – suitable for large model training, fine-tuning
- ☐ A100 (80 GB VRAM) – required for very large models, multi-GPU training
- ☐ No specific preference / flexible

21. If requesting LLM API access, specify:

a. Which models do you plan to use?

e.g., Gemini Pro, Gemini Ultra, PaLM 2, Claude (if available via Vertex), open-weight models on Vertex, etc.

b. Estimated monthly usage (tokens or API calls)

c. Research use case

e.g., prompt engineering experiments, RAG evaluation, benchmark creation, red-teaming, synthetic data generation, etc.

22. Do you require persistent storage for datasets or model checkpoints?

- ☐ Yes – please estimate storage needs (GB/TB):

- ☐ No

23. Estimated total cloud credit budget requested.

Provide your best estimate in USD. Individual awards for this track are typically in the range of \$2,000–\$25,000 depending on scope and team size.

Section 5: Research Impact & Outcomes

24. What are the expected research outcomes? (Select all that apply)

- ☐ Peer-reviewed publication(s)
- ☐ Conference presentation or poster
- ☐ Thesis or dissertation chapter(s)
- ☐ Open-source software, tools, or library
- ☐ Public dataset or benchmark release
- ☐ Patent or invention disclosure
- ☐ Grant proposal (using results as preliminary data)
- ☐ Presentation at CAIA Research Symposium
- ☐ Other (please specify below)

25. How does this project contribute to graduate student development?

Describe how the computing resources will support thesis/dissertation research, skills development, or career preparation for involved graduate students. (200 words max)

26. Does this project involve collaboration with other CAIA institutions or external partners?

- ☐ Yes – another CAIA institution (specify below)
- ☐ Yes – industry partner (specify below)
- ☐ Yes – national lab, government, or nonprofit (specify below)
- ☐ No

27. Will this research generate preliminary results that will be used in future grant applications?

- ☐ Yes – please identify target funding agency and program (e.g., NSF CAREER, NIH R01, DARPA)

- ☐ No / Not yet determined

Section 6: Responsible AI & Data Practices

28. Does your research involve any of the following? (Select all that apply)

- ☐ Human subjects data (requires IRB approval)
- ☐ Protected health information (PHI / HIPAA)
- ☐ Personally identifiable information (PII)
- ☐ Biometric data (facial recognition, voice, gait, etc.)
- ☐ Synthetic media generation (deepfakes, synthetic text at scale)
- ☐ Dual-use AI research (security, surveillance, autonomous weapons)
- ☐ None of the above

29. If any boxes above are checked, describe the ethical safeguards and institutional approvals in place. Include IRB protocol numbers, data use agreements, or other compliance documentation as applicable. (250 words max)

30. Describe your data management and security plan.

How will research data, model weights, and API keys be stored, shared, and protected? (200 words max)

Section 7: Prior Support & Related Funding

31. Have you previously received computing resources through CAIA or a similar program?

☐ Yes

☐ No

If yes, describe the prior award, outcomes achieved, and how the current request builds on or differs from that work.

32. List any active grants or funding that support this research.

Include funding agency, award number, title, and period of performance. This will not negatively impact your application; it helps reviewers understand the project context.

33. Is this project currently supported by any cloud computing credits from another source?

☐ Yes – please specify provider and remaining balance

☐ No

Section 8: Supporting Materials (Optional)

34. Upload a brief CV or biosketch (2 pages max, PDF).

Recommended for reviewers to assess research background. Use the file upload field.

35. Upload any supplementary material (optional, 3 pages max, PDF).

e.g., preliminary results, figures, system architecture diagrams, or relevant prior publications.

Section 9: Applicant Certification

By submitting this application, I certify that:

- I am a faculty member at a CAIA member institution and will serve as PI for this project.
- The information provided in this application is accurate and complete to the best of my knowledge.
- All computing resources will be used exclusively for the research described in this application.
- I will ensure compliance with CAIA's Acceptable Use Policy and the cloud provider's terms of service.
- I will submit a final outcomes report (including publications, student milestones, and usage summary) within 60 days of the award period's conclusion.
- I will acknowledge CAIA and the Connecticut Office of Higher Education (OHE) in any publications or presentations resulting from this award.
- Awarded credits must be used within the Summer 2026 – Fall 2026 period and are non-transferable.

36. Electronic Signature (Full Name)

37. Date

Appendix: Review Criteria

Applications will be evaluated by a peer-review committee using the following criteria:

Criterion	Weight	Max Points
Scientific Merit & Research Significance	30%	30
Computational Justification & Feasibility	20%	20
Graduate Student Development & Mentoring	15%	15
Responsible AI & Data Practices	10%	10
Dissemination Plan & Expected Outcomes	10%	10
PI Track Record & Team Qualifications	10%	10
Cross-Institutional / External Collaboration (bonus)	5%	5
Total	100%	100

Questions? Contact the CAIA Program Office at caia@newhaven.edu
ctaialliance.org