## CAII 2024 Ashby Hackathon Information

This competition is co-organized by the [**Center for Artificial Intelligence Innovation**](https://ai.ncsa.illinois.edu/) at the [**National Center for Supercomputing Applications**](https://www.ncsa.illinois.edu/). The main goal of the hackathon is to let talented UIUC students showcase their skills in a friendly competition while working on challenging problems involving computational science and machine learning using state-of-the-art computational systems at NCSA.

The competition will take place on **April 20-21** at the National Center for Supercomputing Applications with the final presentation of the competition results on **April 23** during the [NCSA Student Research Conference](https://calendars.illinois.edu/detail/7?eventId=33480519)**.** We encourage you to sign up soon using this [Registration Link](https://forms.gle/TgZWVP186JZou9ui7). Deadline for registration is April 12, 2024.

**Eligibility**: Teams must have two or more students (undergraduate and/or graduate) with at least one currently enrolled in the Computer Science Department. Students are encouraged to form teams of up to five students.

**Criteria**: Teams will be evaluated on the following:

1. Innovative approach with respect to utilizing LLMs to generate and execute a workflow, as well as the use of machine learning, information visualization, and other computational techniques.
2. Effective use of NCSA computing resources, including performance on its flagship AI platform.
3. Quality of a written project summary and oral presentation.
4. Relevance of the developed solution.

**Prize**: 1st place $3000, 2nd place $1500, 3rd place $750

**HACKATHON PROJECT**

**Using LLMs as a front-end to computational workflows**

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*Problem:* The main problem to be addressed in this hackathon is how to build a front-end workflow management system based on an LLM and related tools to setup and execute computational workflows. An initial attempt at solving this problem is described in [arXiv:2312.07711](https://arxiv.org/abs/2312.07711). Relevant code and data are available on [GitHub](https://github.com/grimloc-aduque/Phyloflow-Parsl-Implementation). Students will be provided with access to Delta supercomputer and OpenAI API credits.