

Illinois Computes

Beta content

NCSA welcomes you to the Illinois Computes initiative!

We invite you to submit a request briefly describing your intended use of computation, data, or support resources, and we will get back to you within 3 business days: <https://go.illinois.edu/ncsaconsulting>

See below for a list of NCSA resources, expertise, and systems for your reference.

Access to computing resources and user support for researchers across UIUC

Available Resources

- AI and Machine Learning
- Modeling and Simulation
- Data Science
- Secure computing (HIPAA, CUI, and FERPA)
- Domain Expertise (Engineering, Genomics, Crop Science, Data Analytics, Physics, Geographic Information Systems, Astronomy, and Numerical Methods)

Available Systems

- High Performance Computing
- CPUs
- GPUs
- HIPAA compliant
- Mass storage
- On-premises cloud

Support personnel are available to help

- answer questions about how to get started
- compose and maintain scientific workflow
- benchmarking scientific software
- research solutions to complex questions
- explain the technologies available
- optimize and modernize existing code
- work in a range of programming languages and environments such as C/C++, Python, Java, Perl, MPI, OpenMP, Pthreads, Charm++, Containers, SQL, Jupyter, Kubernetes, TensorFlow, Pytorch, Jax, OpenACC, CUDA, I/O
- install and maintain software
- consult on scientific applications and codes
- visual data analysis (e.g. [data dashboards](#))
- data visualization for broader impacts, outreach, and science communication (e.g. [climate](#), [flow fields](#), [astrophysics](#), [film/museum](#))
- longer term research collaboration in various interdisciplinary domains
- joint proposal development to government funding agencies and industry

Get Started

Interested in getting started, but not sure what you need: [Contact us here](#)

Interested in getting started and you already know what you need: [Contact us here](#)

Available Systems: [NCSA Allocations](#)

Computing Resources

- [Campus Cluster](#) - CPU and GPU batch-submission environment plus storage
- [Delta](#) - GPU-rich supercomputer for simulation, AI/ML, Data Science
- [Nightingale](#) - HIPAA secure computation environment
- [Radiant](#) - private cloud computing service
- [HAL](#) - GPU-rich cluster for AI/ML
- [Hydro](#) - CPU and GPU options for AI/ML/MPI workloads

Storage Resources

- [Granite](#) - Tape Archive system, for storing longer term archive datasets.
- [Taiga](#) - Global File System that is able to integrate with all non-HIPAA environments

