Headlines

The Institute for Cyber-Enabled Research is offering two graduate courses this fall to provide practical tools and experiences that will help you become a more productive and capable researcher.

High-Performance Computing with Python

CMSE 890-601
Dr. Claire Kopenhafer (kopenhaf@msu.edu)

Python already supports a wide range of packages that can assist in your research. Now, learn a variety of techniques to make your software more efficient, reducing the time it takes to get research results.

Reproducible Computational Workflows

CMSE 890-602
Dr. Andrew Fullard (fullarda@msu.edu)

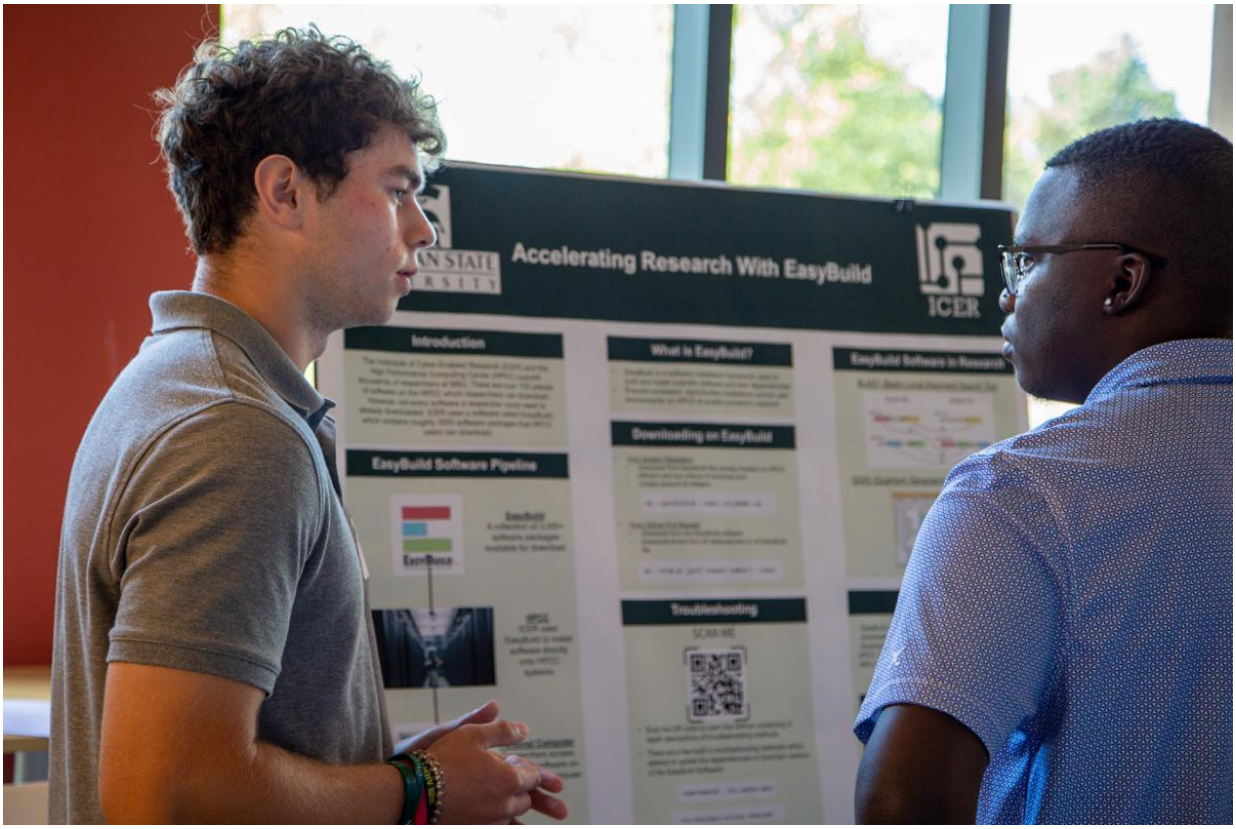
This course will teach you the basics of data analysis workflows, from planning to creation. You will understand modularity, automation, data structures, version control, and code design for research data and software.

Full Course Info

Computational modeling using MFEM – An open-source solver for differential equations

This course is designed for students from all backgrounds who wish to solve differential equations in their research projects. Lectures will cover basic numerical methods, including finite difference, finite element, and finite volume methods, as well as programming in C++ and Python. The students will be guided on an open-

source high-performance finite element solver library (Modular Finite Element Methods Library: MFEM) to complete their research tasks. Learn more about the course in this flyer (PDF, 228 KB).



ICER interns wrap up summer with Mid-SURE poster presentations

ICER interns have been working to improve the HPCC user experience. Congrats and thank you to the four students who presented at Mid-SURE!

- **Connor Neiheisel**: Using EasyBuild to Accelerate Research
- **Michal Borek**: AI Agent for SLURM
- **Aaditya Moudgil**: Performance and Energy Efficiency Analysis of HPCG and HPL Benchmarks Across ICER's HPC Nodes
- **Rohan Banerjee**: Optimizing Domain-Specific Question Answering Using Hybrid Embedding Retrieval and LLM Integration

External News

Jetstream2 NAIRR AI Fellows Program

The Jetstream2 NAIRR AI Fellows Program is a unique opportunity for both early-career and established researchers. The program provides researchers with the skills, knowledge, and experience to leverage Jetstream2, an NSF-funded cloud computing resource. This opportunity includes priority access to high-end GPU computing for AI-based research projects. The program will run from January to September 2026.

Learn more about the Jetstream2 NAIRR AI Fellows Program

Lab Notebooks

Lab notebook documentation describes how to solve a specific problem at a particular time. It is not regularly maintained in the way ICER maintains general documentation. These pages can be casual, trial-and-error tutorials that are relevant for a period of time before becoming outdated.

Recent Lab Notebooks

- AI Models Available on the HPCC
- Using AFNI Graphical User Interface
- Installing r8s on HPCC

Lab Notebooks

State of the System

View the latest HPCC service status updates.

- Gateway Node Operating System Upgrades
- Gateway Configuration Updates - 8/15/2025
- Intel16 Cluster Has Been Retired
- OnDemand Portal Offline - RESOLVED

HPCC Service Status

Status Dashboard