Notes from HPC Activity Group Discussion lunch 8/22

Attendance: Michael Kirby, Bill Carpenter, Brandon Shanks, David King, William Jay, Tracy Webb, Anping Chen, Mara Sedlins,

Updates on Riviera

- GPU that is being worked on.
- 2 A-100s
- Compute nodes
- Currently troubleshooting infinaband
- Tinkering with Jupiterhub
- In talks with Energy Institute. Conversations about expansion

Riviera / computing ideas and shortcomings

- Open On-demand / looking into for students. Better than jupiterhub in certain ways
- One main gain is file management for teaching
- Documentation coming soon
  - YouTube DSRI account will be getting new video tutorials
- Announcements for changes and updates on email listserv?
  - Listserv creation in progress

Computing Symposium at UW September 19-20

- Collaborations with UW are going well right now, and more on the way.
- They are excited to build the collaboration more.
- $40 million grant with UW and they are building a high CPU system
  - Potentially 40 Gracehoppers

How to share with researchers and students which system will be best for their needs

- Videos with DSRI youtube will be a great way to fill that gap
- Build from no coding experience to "kind of knowing what is going on" at the libraries, but missing the component to bridge the gap to computing on HPC

- Policies about data and data security? What can DSRI and Riviera do to help educate about security and data sharing practices.
- Data repository landscape for CSU researchers is broad and unclear at times
- In the future, potential for researchers to compute on Riviera and then go to libraries to help them with sharing their data.
  - Increase collaboration with units across CSU to help build cyberinfrastructure.
  - CC* Grant will be aimed at getting these collaborations outlined and started
- Resources for grant writing and documentation that is up-to date for researchers to use

PII (personally identifying information) what are the protocols, and is it safe to use the resource with that data

How do we plan for the future to be sustainable with HPC power usage?

- Energy institute collaborations and CSU wide need
  - The future of Green AI will be something CSU can be a leader in, especially as AI has boomed in the last couple years.

Looking to share documentation to HPC group for review and feedback (Git?)

NIST RDaF (the web version is easier to navigate and explore): https://rdaf.nist.gov/

- Sections that may be of particular interest to DSRI: Process/Analyze, Community Engagement

HPC Carpentry: https://www.hpc-carpentry.org/index.html

Carpentries Instructor training: https://carpentries.org/become-instructor/ (They used to have a free option, but now there's a fee for people at non-member institutions.)

NSF ACCESS Knowledge Base Resources: https://support.access-ci.org/knowledge-base/resources

4 upcoming HPC workshops

- First workshop will be focused on workload scheduling
- Four consecutive weeks (potentially aiming for start in September)
- Looking to increase users knowledge base of using GPU HPC systems to their full potential
- Increasing efficiency of GPU computing on HPC
- More details to come, it will be good to share the registration and dates with interested individuals (researchers and students)