



# A Whirlwind Tour of Every Resource You Might Want to Know About, Including Conferences, the Research Computing Ecosystem, and Software Carpentries

## Be Boulder.



University of Colorado **Boulder**

Shelley Knuth  
University of Colorado Boulder  
Campus Champion Leadership Team

# Purpose of this talk

- If you're new to the field, here are some things to get you centered!
- If you're “experienced” in the field, here are some things to get you centered!
- Active participation among everyone

# Outline

- Research Computing Ecosystem
  - CaRCC
  - CASC
  - SIGHPC
  - Women in HPC
  - The Carpentries
  - Regional groups
- Conferences and Events

# Research Computing Ecosystem

- Sustainability of the Champions is important in the coming months
- How will the Champions interact with the greater HPC ecosystem?
- Still much to be determined
- Here are some options

# CaRCC

- Campus Research Computing Consortium
- Organization of professionals developing, advocating for, and advancing campus research computing and data and associated professions
- Building community among research computing and data professionals
- Connecting the broader research computing and data ecosystem, professionalization, and workforce development
- Define stakeholders and shared value propositions
- In short, building a community of HPC professionals dedicated to advancing HPC as a whole

# CaRCC

- Some specific focus areas:
  - Career development
  - Visibility
  - Ability to deliver services and resources for researchers
  - Connects professionals and organizations around common objectives
  - Increase knowledge sharing and innovation
  - Roadmap for advocacy and support of professionals
  - Develop products to steward the research computing and data professions

# CaRCC

- How to get involved?
- Join their email list! Ask to be added here: [help@carcc.org](mailto:help@carcc.org)
- Join a working group! Ask to be added here: [help@carcc.org](mailto:help@carcc.org)
- Join the people network! Visit their webpage at  
[www.carcc.org/how-to-join](http://www.carcc.org/how-to-join)

# CASC

- Coalition for Academic Scientific Computation [www.casc.org](http://www.casc.org)
- Organization with 93 member institutions
- Dedicated to advocating for the use of the most advanced computing technology to accelerate scientific discovery
- Institutions are members, not individuals
- More of a formal organization
- Generally those in leadership roles attend (Directors, etc)
- Interface frequently with federal agencies to bring forth research computing and data issues

# SIGHPC

- Mission is to help spread the use of HPC, help raise the standards of the profession, and help ensure a rich and rewarding career for people involved in the field
- Part of ACM
- Events at conferences
- Working groups
- Promotes diversity

<https://www.sighpc.org/>

# Women in HPC

- Was created with the vision to encourage women to participate in the HPC community by providing fellowship, education, and support to women and the organizations that employ them
- Brings together women in HPC and encourages them to engage in outreach activities and improve the visibility of inspirational role models <https://womeninhpc.org/>
- Large conference supposed to be in May
- Events at conferences

# The Carpentries

- Grass roots organization that includes (but not exclusively) HPC
- People can volunteer to teach Carpentries courses using material that is open source and has been developed by the community
- Generally designed to give graduate students the technical tools needed to conduct their research effectively
- Lessons on Linux, version control (Git), programming languages (Python, R, Matlab), Data organization, cleaning, visualization, and analysis
- New HPC Carpentry as well

<https://datacarpentry.org/>

# Conferences and Events

- PEARC
- Supercomputing
- Virtual Residency
- International Supercomputing Conference
- Women in HPC
- CASC
- GlobusWorld
- Linux Clusters Institute

# Conferences and Events

- HPC Users Forum
- IEEE
- SDSC Annual High Performance Computing and Data Science Summer Institute
- Regional Conferences:
  - Rocky Mountain Advanced Computing Consortium
- XSEDE HPC Workshops