COLABS

Collaboration for Better Software (for Science)
Anshu Dubey, David Bernholdt, Dan Gunter
Kevin Harms, Bronson Messer, Richard Gerber, John MacAuley

About COLABS

COLABS offers comprehensive services in support of scientific software stewardship and sustainability. **Our primary workforce is a cadre of research software engineers (RSEs), who will provide services needed by client projects. We also elevate scientific software development through extensive training and education efforts, as well as advocacy for both better software and for the people responsible for it.** A modest research component on the "science of scientific software" supports the services and training.

Key Services and Activities

- Essential Services – baseline RSE levels of effort to support the specific sustainability needs of the project. Available to all client projects as a specific level of RSE effort.

- Advanced Services – more intensive RSE services for higher-effort stewardship tasks. Allocated based on a lightweight proposal process.

- **Software Developer Training – providing training on research software engineering topics to COLABS RSEs, client projects, and the larger community to improve awareness and capability for the development of high-quality scientific software**

- **RSE Workforce Development – developing and delivering educational programs (including internships and co-op opportunities) to bring practical scientific software engineering knowledge and experience into university programs, emphasizing underrepresented groups, with the goal of building the DOE RSE workforce. Advocacy for RSEs to institutions and sponsors.**

- Research in the science of scientific software – R&D, in the spirit of the SSSDU workshop report, to support improving COLABS services and training and the broader community.
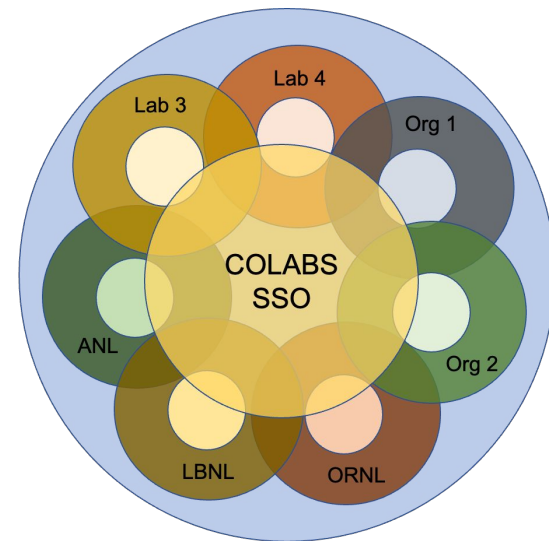
Inclusivity, Diversity, Equity, and Accessibility in COLABS

Focus on recruiting, staffing, and training of RSE staff

- Education pipeline efforts will include MSI/HBCU institutions and recruit from underrepresented groups, also building personal networks to facilitate

- Internship and co-op programs can focus on underrepresented groups
  - Sustainable Research Pathways as a model

- Reword job postings to be more inclusive, reduce imposter syndrome

- Recruit heavily at MSIs, HBCUs, relevant conferences (e.g., GHC, Tapia), network and advertise postings in venues targeting underrepresented groups

- Diverse hiring team, structured interviews

- Hire for talent and potential rather than pedigree, experience, past career path

- RSE training will include IDEA topics, not strictly technical
  - E.g., community building/management, leading through influence, ally skills, diffusion of innovations, team of teams, etc.