

Building Reproducible Science with Singularity Containers

Wednesday, January 31, 2018 10:10 AM (40 minutes)

One of the biggest problems in scientific HPC is ensuring that results are reproducible. That is, the code a scientist runs locally must be able to run identically on any computational resource. Until recently, the job of ensuring that fell to system administrators who needed to manage a complex web of tools and dependencies on those resources. However, with the introduction of HPC containers via Singularity, the ability to mobilize the compute environment has never been easier. Singularity allows anybody to run their own containers on HPC, ushering in a new era of computational mobility, validity, and reproducibility.

About the speaker:

Michael Bauer first began working with containers at GSI national lab in Darmstadt, Germany, in 2017 while taking a semester off of school at the University of Michigan. Michael met Greg Kurtzer, project lead of Singularity, during his time at GSI and he began contributing heavily to the Singularity project. At the start of summer 2017, Greg hired Michael to work at the Silicon Valley startup RStor, where he continued to work on the Singularity container technology. After 6 months at RStor, the Singularity team left RStor to create their own company, SyLabs, Inc., where Michael, Greg and several other developers now work full time on developing Singularity.

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Session Classification: Technology Outlook