

FFW: VICE

Welcome to the materials from this webinar!

- Webinar Description
 - Date: Friday, November 2, 2018
 - Time: 10 am PDT, 1 pm EDT
 - Presenters: Tyson Swetnam, Upendra Devisetty, Cory Hirsch
 - Description:
How can you process 100GB of data using a computational notebook like [Jupyter](#) or [Zeppelin](#), and the [R Shiny](#) app or visualize a point cloud with a billion points in your browser? How do you securely share these apps, data, and analyses with your collaborators and community?

To effectively use these amazing tools with real-world data requires computational resources (CPU, RAM, storage) beyond what is available on laptops/desktops or through hosted platforms like [shinyapps.io](#) and [mybinder](#). Additionally, installation for these tools is often challenging and requires fairly specific versions of software libraries.

With this webinar, CyVerse introduces VICE (Visual Interactive Computing Environment), an extension to the CyVerse [Discovery Environment](#) (DE). It enables users to launch modern data science Integrated Development Environments (IDEs) including Project Jupyter, RStudio, and Shiny, without having to download data or move to another platform to analyze the results from analysis workflows. As a fully integrated piece of the CyVerse data management platform, VICE handles transferring data and returning the results back to the Data Store for you securely.

CyVerse users can take advantage of many existing VICE-based applications or request creation of a customized version. This introductory webinar will demonstrate how to use VICE-based applications and how to design a workflow for creating your own application.

For those interested in using notebooks and creating applications using Jupyter and R Shiny, we will do a live demonstration and walkthrough for using and creating applications in VICE.

Come and explore how VICE and its easy-to-use web-interface can help streamline your research, allowing you to focus more on science and less on software installations.

- About Tyson Swetnam:

Tyson Swetnam's primary responsibilities at CyVerse involve the deployment of Spatial Data Infrastructure (SDI) for life science and agricultural research. He works closely with the NSF [Critical Zone Observatory Network](#), [OpenTopography](#), and [X SEDE](#) deploying scalable GIS applications running on CyVerse resources. His postdoctoral research involved collaborations with the University of Utah, the Agricultural Research Service [Southwest Watershed Research Center](#), the [Arizona Remote Sensing Center](#), and [Santa Rita Experimental Range](#). His recent research areas focus on geomorphology and biogeochemical cycling. He is a member of [AGU](#) and [AFE](#).
- About Upendra Devisetty:

Upendra Kumar Devisetty earned his Ph.D. from the University of Nottingham, UK and completed Postdoctoral Studies at the University of California, Davis and Oregon State University. He has broad bioinformatics experience with particular expertise in Next Generation Sequencing and RNA Sequencing. He is currently a Science Informatician at CyVerse, where he focuses on building tools and apps using Docker and Singularity, supporting External Collaborative Partnership (ECP) projects, and helping teach new users how to use components of the CyVerse infrastructure. He has published more than 15 papers in peer-reviewed journals and has been invited to speak at several international conferences.
- About Cory Hirsch: see <https://plpa.cfans.umn.edu/people/faculty/cory-hirsch>
- Presentation Slides: https://docs.google.com/presentation/d/1Qudsef3Zb2QoBhZg62mxQTdoiNoS_ZTS7nK8d5Vqtf0/edit#slide=id.g42feaae5e_0_15
- YouTube Video:

- [chat text](#)
- [documentation](#) for VICE (ReadtheDocs)
- DE Manual - Using VICE: Visual and Interactive Computing Environment
- Post-webinar Survey (we value and need your input)- <https://www.surveymonkey.com/r/CyVerseVICE>
- 34 attendees (excluding presenter and host)