

# Data & Visualization Weekly Projects Report

## 2022\_\_04\_\_12

### Active Projects

#### Active Development

- Exosphere/Jetstream2 A100 Testing
  - Vulkan singularity container is having problems on this, but the remote desktop support is nice
  - Should help them trouble shoot the virtual gl setup
- Biosphere2 Digital Twin
  - Had meeting with B2 higher ups, and Bruce McGowan is introducing me to the team at Nvidia who work on the digital twin projects
- Sensor Lab Demo Package
- Blender on HPC workflow for GIS
  - Started screen capturing material for this workflow
  - Also helped Sara with a request for this kind of support on the HPC
- Cyverse Field Scanner Vis Tool
- Kay He Exoplanets
- Kay He B2 Lung
  - Work for this is ramping up, had conversation about amount of hours we can work on this, have to figure out how to do projection mapping for this project but Kay knows more about this
  - Have meeting with Kay this afternoon to scope out the work
- CATalyst data studio vis wall playlist
- Thermal Imaging Project
- Vulkan on HPC
- Streaming Technology for HPC
  - Learned about using multiple 8bit pngs converted to mp4 as a means of leveraging existing mechanisms to stream video as generic data streaming option
- Data Visualization Roadshow With Jeff Oliver and Kiri Carini
  - Had Level up tech core presentation last week, went well
- Independent Study Abby Collier
  - Met with Abby during the week and she helped me put together the workshop material for Marcos' class
- Stellarscape Astronomy Multimedia Dance Performance
- Virtual Nature

#### Consultations

- Allie Lalor pine tree growth computer vision assistance
  - Met with Allie and started writing/running her image segmentation on HPC
- Erin Choi Brain modeling visualization

- Met with Erin and she has fabricated and painted a number of her models
- Started discussing entering it in the Symbiosis science and art show hosted by NSCS dept

## Upcoming

- Kay He Flandrau Eclipse Event and Lobby Installation
- Kay He Bryan Carter Collaboration
- TURN UP Festival Performance NYU/UA collab
- Volumetric Capture processing on HPC
- Has Faculty Collaborations With Holodeck
- Ray Tracing On The Hpc
- Observablehq Portfolio Of Data Visualization
- Jason Hortin Holographic Dance Graduate Project

## Completed For Calendar Year

### Recently Completed

- Intro workshops for Marcos ART 223 Imaging class
  - [https://arizona.zoom.us/rec/play/hCEmlxRYLP4QLuuES0IKV2l3Jwi4ruiyO4eJuLQQnNqLGbQXP-J-XqkHWm2FVJcyx1u-VUNOwNbhBcEaS.QqwrqfPgoeKI8O3M?continueMode=true&\\_x\\_zm\\_rtaid=pLWoGMKRoaTmt1UCsowhw.1649461220539.cb55efa3f6c0817c13ffc64aeacbd210&\\_x\\_zm\\_rhtaid=5](https://arizona.zoom.us/rec/play/hCEmlxRYLP4QLuuES0IKV2l3Jwi4ruiyO4eJuLQQnNqLGbQXP-J-XqkHWm2FVJcyx1u-VUNOwNbhBcEaS.QqwrqfPgoeKI8O3M?continueMode=true&_x_zm_rtaid=pLWoGMKRoaTmt1UCsowhw.1649461220539.cb55efa3f6c0817c13ffc64aeacbd210&_x_zm_rhtaid=5)
  - [https://arizona.zoom.us/rec/play/K-H\\_X7sWtZiMG-ZOyMA1B3oW2Gj0\\_IJaHXGT1B9icEeXYieCpLWoGMKRoaTmt1UCsowhw.1649461220539.cb55efa3f6c0817c13ffc64aeacbd210&\\_x\\_zm\\_rhtaid=5](https://arizona.zoom.us/rec/play/K-H_X7sWtZiMG-ZOyMA1B3oW2Gj0_IJaHXGT1B9icEeXYieCpLWoGMKRoaTmt1UCsowhw.1649461220539.cb55efa3f6c0817c13ffc64aeacbd210&_x_zm_rhtaid=5)
- Performance Art and Interactivity Presentation for MUS 542
- Marcos Serafim Touch Designer visualization of audio file as video data bending

### Workshops/Trainings

- Intro workshops for Marcos ART 223 Imaging class
  - [https://arizona.zoom.us/rec/play/hCEmlxRYLP4QLuuES0IKV2l3Jwi4ruiyO4eJuLQQnNqLGbQXP-J-XqkHWm2FVJcyx1u-VUNOwNbhBcEaS.QqwrqfPgoeKI8O3M?continueMode=true&\\_x\\_zm\\_rtaid=pLWoGMKRoaTmt1UCsowhw.1649461220539.cb55efa3f6c0817c13ffc64aeacbd210&\\_x\\_zm\\_rhtaid=5](https://arizona.zoom.us/rec/play/hCEmlxRYLP4QLuuES0IKV2l3Jwi4ruiyO4eJuLQQnNqLGbQXP-J-XqkHWm2FVJcyx1u-VUNOwNbhBcEaS.QqwrqfPgoeKI8O3M?continueMode=true&_x_zm_rtaid=pLWoGMKRoaTmt1UCsowhw.1649461220539.cb55efa3f6c0817c13ffc64aeacbd210&_x_zm_rhtaid=5)
  - [https://arizona.zoom.us/rec/play/K-H\\_X7sWtZiMG-ZOyMA1B3oW2Gj0\\_IJaHXGT1B9icEeXYieCpLWoGMKRoaTmt1UCsowhw.1649461220539.cb55efa3f6c0817c13ffc64aeacbd210&\\_x\\_zm\\_rhtaid=5](https://arizona.zoom.us/rec/play/K-H_X7sWtZiMG-ZOyMA1B3oW2Gj0_IJaHXGT1B9icEeXYieCpLWoGMKRoaTmt1UCsowhw.1649461220539.cb55efa3f6c0817c13ffc64aeacbd210&_x_zm_rhtaid=5)
- Performance Art and Interactivity Presentation for MUS 542

### Completed Projects/Collaborations

- Marcos Serafim Touch Designer visualization of audio file as video data bending

**Completed Consultations**

- Martha Bhattacharya Cytoscape installation

**Infrastructure Developed****Protocols and Analysis Developed**