

# Data & Visualization Weekly Projects Report 2021\_11\_22

## Active Projects

### Active Development

- CATalyst data studio vis wall playlist
  - Will be integrating in the links from the data Vis Challenge competition in other years to feature on the display
- Thermal Imaging Project
  - figured out how to have certain shapes and metrics appear on the screen while the videos get processed so that I can screen record - started adapting sketches to the formal vector graphic diagram
- Vulkan on HPC
- Streaming Technology for HPC
- Data Visualization Roadshow With Jeff Oliver and Kiri Carini
  - gave our last presentation this week, only one attendee so I think we could be doing something different to increase our numbers
  - Did a full debrief of the semester and figured out some plans for what we are thinking of doing next week
- Independent Study Abby Collier
- Stellarscape Astronomy Multimedia Dance Performance
  - Had a tech test rescheduled into Kay's office, and tried to hookup two different sensors to our dancer Hayley
  - for some reason only one of these things wanted to work at a time
- Virtual Nature
  - Omani recently started working on a audio localized Unreal scene - This means for other aspects of the virtual nature project we will be able to further immerse a user
- Radiology 1St Year Resident Carl Sabotke

### Consultations

- Visit remote visualization support
  - Worked with Eric Brugger and Mark Miller to get setup writing a custom launcher for the HPC
  - Got allocation to start from the local client VisIT application

## Upcoming

- 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

## Completed For Fiscal Year

### Recently Completed

#### Workshops/Trainings

- Mt. Lemmon In Your Pocket-Creating A Virtual Reality Tour
  - [https://rtdatavis.github.io/#GIS\\_week2020](https://rtdatavis.github.io/#GIS_week2020)
- Presentation For Civil Engineering Department
  - <https://docs.google.com/presentation/d/15Z9zcxU4vIIgFPnKEcaGv9GH7JtjNdx4Xpnjec0EzEc/edit>
- Resbaz Organizer And Workshop Provider
  - [https://hackmd.io/-XS5Mqh8TA2EHjTHCQ\\_4tw](https://hackmd.io/-XS5Mqh8TA2EHjTHCQ_4tw)
- Tech Core Level Up Presentation Monday, Sept 28 2020
  - <https://rtdatavis.github.io/#techcoresept28>
- Tech Core Level Up Presentation Tuesday, Mar 17 2020
  - <https://rtdatavis.github.io/#techcoremar20>
- Womens Hackathon: Visualization On The Web Workshop
  - <https://womenshackathon.arizona.edu/>
  - <https://www.youtube.com/channel/UCe1YiJ53o3qcayVs4cipeXA/videos>
  - <https://www.youtube.com/watch?v=VLwPOtqW8oM>

#### Completed Projects/Collaborations

- ENVIS Term paper Consultation on Cu+ exposure and environment resilience
- IEEE Satellite Vis Conference Planning
  - <https://www.appsheet.com/start/7e25f1d2-e9a4-4eec-a31a-5edd275f3059>
- Collaboration With Techcore'S Summer Internship
  - [https://hackmd.io/xi\\_m4Kj6QDenBR3ZAfN3iw?edit](https://hackmd.io/xi_m4Kj6QDenBR3ZAfN3iw?edit)
  - 'Project folder on gdrive': '<https://drive.google.com/drive/folders/13v9QfUFVjQD-x7dh8chQZFvAxmy5zmx6?usp=sharing>'
  - 'videos': '<https://drive.google.com/drive/folders/18tT28oLiXFH1wH8NGUwSU1K0URyzJq9o?usp=sharing>'
  - 'Pecha Kucha style presentation': '<https://docs.google.com/presentation/d/1n6ggKJ-oG7fqHfVsLMnuYkAVh095B1RA7EcNx1RQ12M/edit?usp=sharing>'
  - 'presentation video': '<https://www.youtube.com/watch?v=EiQ9S5lNbA8>'
- 3D & Vr Retrofit Azlive
  - <https://rtdatavis.github.io/#retrofitAZLIVE>
- Bio5 Virtual Reality Tour
  - <https://rtdatavis.github.io/#bio5-vr-tour>
- Covid Retail Mitigation Web Scraping
  - <https://rtdatavis.github.io/#retailscraping>
- Force Directed Biochem Networks
  - <https://rtdatavis.github.io/#biochem-networks>
- Migrant Forensic Empathy Project: A Digital Borderlands Grant Initiative
  - <https://mfemigrantdeathmap.baylyd.repl.co/>
  - [https://devinbayly.github.io/digital\\_borderlands\\_conversion/src/mesh\\_test.html](https://devinbayly.github.io/digital_borderlands_conversion/src/mesh_test.html)

- [https://devinbayly.github.io/digital\\_borderlands\\_conversion/src/index.html](https://devinbayly.github.io/digital_borderlands_conversion/src/index.html)
- [https://hackmd.io/Qo\\_HmwmwSTG-QPYVTJl0Lg?view](https://hackmd.io/Qo_HmwmwSTG-QPYVTJl0Lg?view)
- <https://osf.io/v9swc>
- Neuro Choropleth
  - <https://rtdatavis.github.io/#neuro-choro>
- Oyster Vibrio Literature Review
  - TBA
- Spring Break Covid Photo Maps
  - <https://rtdatavis.github.io/#spring-break-covid>

### **Completed Consultations**

- Annalisa Lovos Publication Figure Rescaling
- Lilliana Salas GIS GDP
- Arminda Estrada, ECE
- Discussion about Social Network Analysis Visualizations
  - NA
- Advice For Thesis Defense Visualizations, Sabrina Nardin
  - NA
- Bryan Carter Photogrammetry
  - <https://sketchfab.com/3d-models/churche-maze-photogrammetry-d0767af08a5d498fb960efe3ac83385f>
  - [https://drive.google.com/file/d/11E5\\_912vW6kuPBxcujGKs-UQD9S3jA-H/view?usp=sharing](https://drive.google.com/file/d/11E5_912vW6kuPBxcujGKs-UQD9S3jA-H/view?usp=sharing)

### **Infrastructure Developed**

- Remote Visualization Infrastructure Development spring 2021
- Autamus Web Interface
  - [https://rtdatavis.github.io/#autamus\\_interface](https://rtdatavis.github.io/#autamus_interface)
- Virtualgl For Nvidia Accelerated Remote Hpc Visualizations
  - <https://rtdatavis.github.io/#virtualgl>
- Xpra And Singularity For Comprehensive Graphical Application Support On Hpc
  - <https://rtdatavis.github.io/#xprasingularity>

### **Protocols and Analysis Developed**