Data & Visualization Weekly Projects Report 2022_01_31

Active Projects

Active Development

- Kay He Exoplanets
- Kay He B2 Lung
- Marcos Serafim Touch Designer visualization of audio file as video data bending
  - Spent time last wed rendering out touch designer video files for his conference video
- CATalyst data studio vis wall playlist
- Thermal Imaging Project
  - Setup the array job processing, and planned a meeting with Ed and his students to do the handoff, but they didn't show up
  - Added vertical filter option and brush/end controls to the log plotter
- Vulkan on HPC
  - Spent quite a bit of time working on getting vulkan to run on Expanse, reached out to their staff on an Xsede ticket and haven't heard back after initial emails
  - Seems like there may just be a number of Nvidia cards that aren't configured to be able to work with vulkan
  - Trying to get access to more machines (New xsede startup allocations, and an info ticket submitted to the TACC folks about how to get access to Longhorn, Frontera, Lonestar)
- Streaming Technology for HPC
- Data Visualization Roadshow With Jeff Oliver and Kiri Carini
  - Jeff is setting up meetings with the Honors college
  - Need to arrange a time to debrief the previous semester before we start having presentations again
- Independent Study Abby Collier
  - Met with Abby and looked at her customized audio analysis program
  - Spent most of our time going over custom glsl materials as Keystone in the network, sounds like some real progress was made in terms of her understandings
- Stellarscape Astronomy Multimedia Dance Performance
- Virtual Nature
  - Trying to get in touch with Maria to hear her thoughts on hiring a student from UCF through the federal work study program

Consultations

- Martha Bhattacharya Cytoscape installation
  - She was affected by the maintenance last week but it sounds like

everything is fine again
- Laura Miller Math
  - Laura had to move her wednesday meeting back by another week, this has given me more time to test things out for the visit setup which still only works on linux

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
- Jason Hortin Holographic Dance Graduate Project

Completed For Fiscal Year

Recently Completed

- Sarah Stueve d3 brushing

Workshops/Trainings

- Mt. Lemmon In Your Pocket-Creating A Virtual Reality Tour
  - 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
- 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

- 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
  - 'Project folder on gdrive': 'https://drive.google.com/drive/folders/13v9QfUFVjQD-x7dh8chQZFvAxmy5zmx6?usp=sharing'

- – 'videos': 'https://drive.google.com/drive/folders/18tT28oLiXFH1wH8NGUwSU1K0URyzJq9o?usp=s
  - – 'Pecha Kucha style presentation': 'https://docs.google.com/presentation/d/1n6ggKJ-oG7fqHfVsLMnuYkAVh095B1RA7EcNx1RQ12M/edit?usp=sharing'
  - – 'presentation video': 'https://www.youtube.com/watch?v=EiQ9S5lNbA8'
- Radiology 1St Year Resident Carl Sabotke
- 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/index.html
  - – 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
- ENVS Term paper Consultation on Cu+ exposure and environment resilience

Completed Consultations

- Sarah Stueve d3 brushing
- Volumetric Capture presentation emergency request CDH
- Shane Thomas using python pandas
- Kirsten Ball ENVS
- 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
- Annalysa Lovos Publication Figure Rescaling
- Lilliana Salas GIS GIDP
- Arminda Estrada, ECE

Infrastructure Developed

- Remote Visualization Infrastructure Development spring 2021
- Autamus Web 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