

Data & Visualization Weekly Projects Report

2022_02_12

Active Projects

Active Development

- Sensor Lab Demo Package
 - I had a meeting with Gustavo Almeida to return materials used for the astro dance show and he asked me if I could help a group of his student workers with generating demo material for the sensor lab
 - I will be helping the students use and learn the touch designer program and the godot game engine to incorporate realtime input from sensors in their supply to visual outputs
 - These demos will then help future clients of the sensor lab understand the capabilities of each tool
 - this will increase equipment rental for the sensor lab, and save time for the clients
- Blender on HPC workflow for GIS
 - This project aims to flesh out headless rendering workflows on the HPC using the 3d program Blender
 - Finished a proof of concept with a GIS Graduate Assistant Glenn Ingram who needed to render high resolution landscape data for infographics but all the machines he had access to would run out of memory before he was able to finish
 - Using only 16 cores on Elgato he was able to render his 100% resolution landscape in 50 minutes
 - This tool and workflow can be used by many individuals to complete their high performance renders on the HPC
 - Will write up documentation for confluence next week
- Cyverse Field Scanner Vis Tool
- Kay He Exoplanets
- Kay He B2 Lung
- Marcos Serafim Touch Designer visualization of audio file as video data bending
- CATalyst data studio vis wall playlist
- Thermal Imaging Project
 - Created repo home page with full documentation of code, process, screenshots and video to help understand what I'm delivering to them
 - Met with Ed to triage some things that weren't clear in the material provided
- Vulkan on HPC
 - Still troubleshooting the issues with Darwin in delaware, GLIBCXX version appears to be too old to work by default, trying singularity work around
- Streaming Technology for HPC

- Data Visualization Roadshow With Jeff Oliver and Kiri Carini
- Independent Study Abby Collier
 - Met with Abby, worked on more of the touch designer workshop material for the school of art, and started drafting demo ideas for the sensor lab
- Stellerscape Astronomy Multimedia Dance Performance
 - This was the big re-render week
 - Spent a lot of time with Kay's machine trying to fix issues related to the various effects being not quite right for editing into the sxsw footage
 - Just had meeting about how the sensor installation will work when we get to austin
 - Have to work on features and testing with custom network
- Virtual Nature
 - Had phone call with Maria, mentioned progress being made towards bringing her talk to the university
 - Asked for clarification about her ideas related to hiring a student through the federal work study program to assist with the development

Consultations

- Erin Choi Brain modeling visualization
 - Jenn Nichols from catalyst sent me an email asking if I could assist with this project given my background in visualization and neuroscience
 - Erin is a freshman student who wants to print out 3d models to help explain ideas in neuroscience literature about morphological differences in brain structures of individuals with PTSD
 - I will meet with Erin every other week on Thursday to assist with her progress on this providing resources and advice as needed
 - The outputs of this will in theory be a story for the newsletter that we are producing quarterly
- Visit remote visualization support
 - Got edit permissions added so that I can update confluence visualization pages

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 Calendar Year

Recently Completed

- Martha Bhattacharya Cytoscape installation

Workshops/Trainings

Completed Projects/Collaborations

Completed Consultations

- Martha Bhattacharya Cytoscape installation

Infrastructure Developed

Protocols and Analysis Developed