Data & Visualization Weekly Projects Report 2021_12_06

Active Projects

Active Development

- CATalyst data studio vis wall playlist
  - Made changes to the playlist application so that it would support google drive static content
  - Haven't figured out how to make it play videos automatically from google drive, but in this case it might be recommended that the video gets uploaded to youtube and we just use unlisted links that have autoplay supported
- Thermal Imaging Project
  - Attended and assisted with the Lowell Geotechnical Center of Excellence shareholder presentation last week
  - Provided my diagrams and screencasts for the presentation and got feedback that attendees really enjoyed seeing this stuff in action
  - Decided to test out some of the code on a raspberry pi since the groups goal is to have these algorithms running onsite at the pit mines
- Vulkan on HPC
- Streaming Technology for HPC
- Data Visualization Roadshow With Jeff Oliver and Kiri Carini
- Independent Study Abby Collier
- Stellarscape Astronomy Multimedia Dance Performance
  - Had last official tech test in Crowder hall
  - Things went incredibly well, we were able to actually put sensors on Hayley and step through the full timeline of part 2a of the performance
  - {'I also found out that we have several other presentation opportunities in 2022': 'The Athens conference on performance and visual art (june 2022), SXSW 2022'}
- Virtual Nature
  - Discovered that the botanical gardens actually has an exhibit that is very close to what we are trying to develop in the spring
  - I will be reaching out to them in a little while to see if they are interested in becoming a community partner on the grant that Maria has submitted
  - Met with Omani and worked on more Unreal learning and development
- Radiology 1St Year Resident Carl Sabotke

Consultations

- Visit remote visualization support
  - Last week got this taken care of, made all changes suggested by Eric

Brugger and then coupled the process to the HPC VPN
- This makes it possible to sign in to open connect and then communicate directly to the allocation that is created automatically according to the HPC profile
- Not sure how this will work out with different versions of VisIT or when people want to use different clusters, but if Puma is the target then we are all set

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
- 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'
- 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

- 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