

Data & Visualization Weekly Projects Report

2021_07_30

Active Projects

Active Development

- Biosphere 2 Biosystems Visualization Collaboration
 - Met with Omani and discussed new idea to use photogrammetry to create the point cloud version of her scene
 - This means we need to automate the taking of high resolution photos from her unreal engine scene
 - Left that as a task for her to experiment with next week
- Collaboration With Techcore'S Summer Internship
 - last week the students had the chance to go to the biosphere 2 rainforest
 - Also we found out that we aren't going to have the new lidar data coming from Joost so we are changing to supporting a photogrammetry workflow
 - Trying to keep the interns busy working on things that fit with their respective interests, but the creative track students are a little hard to keep busy
- Data Visualization Roadshow With Jeff Oliver
 - Met with Jeff and planned the changes we have to make to the presentation for next thursday
 - I decided on the dataset that I'll be using in my part of the presentation (SIR model for virus transmission)
 - Sent messages out to Catalyst to figure out a meeting time for presentations there in the fall
 - Jeff invited me to attend the Software carpentry instructor training happening this fall and I think that sounds like a great idea
- Independent Study Abby Collier
 - Met with Abby and worked on compute shader stuff for self advection of color
 - we also worked on noise generation inputs for the astro dance performance movement 2c
- Radiology 1St Year Resident Carl Sabotke
- Remote Visualization Infrastructure Development
- Stellarscape Astronomy Multimedia Dance Performance
 - Director decided that we are going to try to finish all the visuals in the next month which meant I had to respond with my own sense that this won't be entirely possible
 - Had a meeting to discuss remaining visual to finish and what the priorities are
 - Started the process of transferring the Northwestern star formation simulation to hard disk to produce visuals from it

- Checking on the machine that had the Agora Plantary disk simulation on it and that Jetstream machine is proven very difficult to access for some reason
- Managed to work with Rishav Kumar who is Gustavo Almeida's student to send data over bluetooth from a wearable device to touch designer

Consultations

Upcoming

- Has Faculty Collaborations With Holodeck
- Observablehq Portfolio Of Data Visualization
- Ray Tracing On The Hpc

Completed For Fiscal Year

Recently Completed

- Discussion about Social Network Analysis Visualizations
 - NA

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/15Z9zcxU4vIlgFPnKEcaGv9GH7JtjNdx4Xpnjec0EzEc/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

- 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>

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

Infrastructure Developed

- 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