Data & Visualization Weekly Projects Report 2021_03_01

Active Projects

Active Development

- Argonne Gpu Hackathon
  - Dima asked if he could join the team so I wrote to the organizers to update our roster and they allowed it
- Biosphere 2 Biosystems Visualization Collaboration
  - Omani now has DCC status, which is great
  - Met and she got unreal engine installed on the machine that is more stable than the laptop
  - She's going to continue to brush up on her python
  - I'm going to try to create the first 3D texture of our first root so that we can use other programs than p5.js to do some of our first animated visualizations
- Bryan Carter Photogrammetry
  - Tyson and Bryan were able to meet, but I could attend
  - Have a meeting with Bryan set for first week of March to discuss HPC and Metashape workflows
- Independent Study Abby Collier
  - Met and took care of questions for the week
  - Moved along to using transitions and animations for our data visualizaions
  - Started looking at how D3 manages changes to the visualization's underlying data (enter,update,remove selections)
  - Assigned exercises for the week
  - Mentioned that she should attend the weekend workshop on using p5.js for website element creation, and she was one of the 5 people
- Judging The Data Visualization Challenge
- Migrant Forensic Empathy Project: A Digital Borderlands Grant Initiative
  - Picked up an oculus rift from the library that I can use for 2 weeks
  - I'll try to record some of my previous unity build reviews so that I can refer to those as I start the Aframe conversion this way I don't have to rent the hardware multiple times
- Presentation For Civil Engineering Department
  - Met with Jeff Oliver, ran through our presentation to practice
  - Discussed changes, sent the presentation to Joshua Levine to double check the attributions for material from his slides
  - Presented to the graduate civil engineers seminar
  - Jeff mentioned that it went so well that he wants to "take it on the road"
- Remote Visualization Infrastructure Development
  - See whether I can use the singularity containers in the HPC testing

environment that Chris has setup on Ocelote
    – If that works out, transfer the containers to the exosphere GPU instances I have from Jeremy Fischer and test there
- Resbaz Organizer And Workshop Provider
    – started working with Alex and Kate on a google doc to organize our plans for introducing ObservableHQ at the resbaz this year
    – connected with Fernando Rios' buddy Ian Johnson who works at Observable
- Stellarscape Astronomy Multimedia Dance Performance
    – Met with Kay to do Space Engine Flythroughs with the new version of the program, using its built in recorder
    – She thinks that we have all the space footage that we need for the show now
    – Met with Lewis Humphrey of Tech Launch Arizona to discuss what license we need for the programs we use in the project, he says we are commercial and Kay will try to raise money to pay for Touch Designer commercial license (600$)
    – Deadline for visuals of the first movement was Friday, but not everything was complete
    – Created a Trello to better track my progress and Kay's suggestions
    – New deadline is the 18th to finish part 1, and the first of april to have the second movements visuals
- Womens Hackathon: Visualization On The Web Workshop
    – Recorded my workshop on friday evening
    – Second hour on HTML/CSS started recording but didn't finish so will have to re-record and upload this week
    – Trouble shot issues with uploads of longer videos on saturday morning
    – Apparently the email notifications for participants didn't go out so I may be teaching this again next saturday
    – Had 4 people attend and taught about basic p5.js as well as how to use it to create webpage interfaces that can affect the visualizations

Consultations

- Bryan Carter Photogrammetry
- Jason Hortin Holographic Dance Graduate Project

Upcoming

- Cyverse Container Bootcamp Sig On Remote Visualization
- Has Faculty Collaborations With Holodeck
- Jason Hortin Holographic Dance Graduate Project
- Observablehq Portfolio Of Data Visualization
- Oyster Vibrio Literature Review
- Ray Tracing On The Hpc

Completed For Fiscal Year

Workshops/Trainings

- Mt. Lemmon In Your Pocket-Creating A Virtual Reality Tour
- Tech Core Level Up Presentation Monday, Sept 28 2020
- Tech Core Level Up Presentation Tuesday, Mar 17 2020

Completed Projects/Collaborations

- 3D & Vr Retrofit Azlive
- Bio5 Virtual Reality Tour
- Covid Retail Mitigation Web Scraping
- Force Directed Biochem Networks
- Neuro Choropleth
- Spring Break Covid Photo Maps

Infrastructure Developed

- Autamus Web Interface
- Virtualgl For Nvidia Accelerated Remote Hpc Visualizations
- Xpra And Singularity For Comprehensive Graphical Application Support On Hpc

Protocols and Analysis Developed