

SE 492 - sdmay20-54

## Enabling Repeatable Graph-based Experimentation and Education

### Bi-Weekly Report 5 - Semester 2

3/14-4/1

Client: Ben Holla

Faculty Advisor: Suresh Kothari/Payas

### Team Members:

Austin Gregory - Report Manager

Peter Marasco - Communication Coordinator

Blake Mulnix - Trello Manager

Kyle Ferguson - Meeting Coordinator

Matthew Schaffer - Technical Leader

### Past Week Accomplishments

- Developed Video Presentation Demo - All members
  - Develop powerpoint presentation
  - Record audio describing each aspect of our project
  - Edited audio clips/presentation slides into video
- Embedded demo server into website - Austin/Blake
  - Embedded graph visualization demo server into the website
  - Used IFrame of Jupyter Kernel to embed the visualization in the html page
- Changed import/output approach for graph for future scaling - Peter/Matthew/Kyle
  - Changed the I/O approach of the CHPG files from XML to JSON/Java Objects to allow for scalability of graphs
  - Adjusted parsing in import function to account for the new graph format

## Pending Issues

- Change import/output approach for graph for future scaling (Priority)
  - Change the I/O approach of the CHPG files from XML to JSON/Java Objects to allow for scalability of graphs. Currently will run into some issues with massive graphs
- Add typing to graphs (genetic graphs, statistical data, software)
  - Currently only have software control-flow graphs
- Edges in graph crossing (requires overhaul of algorithm)
  - Add taxi-like edges that avoid graph crossing to more accurately replicate Atlas
- Add further context menu options
  - Brainstorm potential additions
- Save graphs to notebook
  - Save XML files to the notebook rather than importing each time

## Individual Contributions

| Team Member      | Contributions  | Bi-Weekly Hours | Total Hours |
|------------------|--|-----------------|-------------|
| Austin Gregory   | Embedded demo server into website, Developed video presentation, Status Report | 12              | 56          |
| Peter Marasco    | Changed I/O approach for graphs, Developed video presentation                  | 13              | 59          |
| Blake Mulnix     | Embedded Demo Server into website, Developed video presentation                | 12              | 61          |
| Matthew Schaffer | Changed I/O approach for   | 13              | 55          |

|               |   |    |    |
|---------------|---|----|----|
|               | graphs, Developed video presentation                          |    |    |
| Kyle Ferguson | Changed I/O approach for graphs, Developed video presentation | 13 | 55 |

## Plans for Next Week

- **Prepare For Final Presentation - All members**
  - Delegate responsibilities
  - Develop powerpoint presentation
  - Rehearse presentation
- **Final Code Cleanup - All Members**
  - Final Code Review
  - Add/Polish Documentation
  - Prepare for “shipment”