

Revised Timeline Explanation

Usage of BDR codebase has the potential to simplify certain architectural issues (developing the proposal & state representations and the evaluation framework) but poses its own obstacles – getting set up with Bash on Ubuntu for Windows and assembling & familiarizing myself with the dependencies used have proven relatively time-consuming. In addition, the BDR codebase incorporates at least in part a way to import regional map data for the state of Ohio – once it is fully functional, the extent of the available data can be accurately determined. Most likely, I will have to gather voter data from a third-party site; the most promising dataset thus far is from the Princeton Gerrymandering Project. Overall, I am optimistic about the current project timeline; I expect to have much more free time in the spring semester to work on this project, now that I am finished taking the LSAT and applying for law schools, which was a massively time-consuming project. In the spring semester, I will also be able to finalize my list of algorithms that will be incorporated in the final model, and I will be able to follow up with prior contacts in the Ohio Democratic Party and the ACLU while I am working on implementing the J_θ cost function. Due to the number of still-in-progress tasks, I may end up implementing a smaller number of redistricting algorithms by the end of January, and that may not be completed until mid-to-late February.

Timeline

By October 31:

- Secure regional & political datasets of the state of Ohio and process them into a computationally interpretable format. (Delayed)

- Develop the data structures that will be used to digitally represent the maps and proposals. (In Progress)

By November 30:

- Compile list of redistricting algorithms to be included in the study, including beam search. (In Progress)
- Develop the software framework required to evaluate redistricting algorithms. (In Progress)
- Speak with local officials involved in the redistricting process about the criteria involved in the development of a good district proposal. (Completed)
- Use this to inform the implementation of J_θ . (Completed)

By January 31:

- Have 1-2 redistricting algorithms evaluation-ready, including beam search.
- Implement all metrics to be included in J_θ .

By February 28:

- Have 4 redistricting algorithms evaluation-ready, including beam search.

By March 31:

- Incorporate remaining redistricting algorithms.
- By this point, the entirety of the optimization portion should be completed.

- Remain in contact with local officials and get feedback on algorithmically-produced border proposals.

By April 30:

- Complete implementation of artificial dataset generation.
- Run optimizer on artificial data.
- Generate new datasets and develop some form of user-friendly interface.

Summer 2019 (after thesis submitted): Reach out to contacts in local & state government.

Work towards developing a useful proposal for the Ohio General Assembly. Eventually, develop and present a proposal to the General Assembly.