

My main contribution to the project was the development of the transition algorithm used to resolve moves between sets. After trying different strategies, I eventually came up with a system where a rough mathematical transformation was used to rank the desirability of spots in the second set for each marcher and then allocate those spots in such a way to minimize overall distance. This task played into my strengths, allowing me to work primarily within code and try different solutions. One aspect of the development that I am particularly proud of is how I did some of the modularity. There were times where I wanted to test how small tweaks could affect the outcome, and I strived to make code where these tweaks could be implemented as simply as possible. I will keep that modularity and ease of design in mind for all my future projects. My background in marching band also helped in my development, as it allowed me to think of good heuristics that greatly sped up the algorithm.

A large downside of focusing so heavily on one aspect of the project is that I did not get a chance to really work on any of the other aspects. While I believe my contributions to the project were significant and useful, I will admit there are other areas I hardly touched. Additionally, the other members of the team did not participate as much in the development of the transition solver. I am very proud of my solution, but I do wonder if there were some additional optimizations that could have been discovered if the development work had been more collaborative.