

As a four person team, we tried to divide up the work as much as possible. Emily worked mainly on dataset generation where initially manually transcribed Wheeler Graphs by pulling examples from papers and Github repositories. Afterwards, she wrote custom Trie class for large Wheeler Graphs, trie-to-graph conversion, and random DNA sequence input file generation for tries, and she wrote code that generated benchmarking graphs to visualize the performance of the two different algorithms. Lucy wrote the naive approach for the Wheeler graph verifier, and improved the runtime of the naive verifier by partitioning and grouping the edges prior to checking the properties (partition approach). Emma was primarily responsible for coding the visualization of the Wheeler Graphs using networkx. She also worked on extending the verifier to generate an ordering given a Wheeler Graph, and she wrote the bulk of the code responsible for benchmarking. Ajay helped with the initial stage of visualization setup, created a graph size table, and helped with benchmark analysis through writing code that generated benchmarking graphs to visualize the performances of the two algorithms. Everyone worked on doing the project writeup and filling out the presentation slides.