CS141 – Intermediate Algorithms and Data Structures
Assignment 2 – All Pairs Shortest Path

[Your Name Here]

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Abstract

	Bellman-Ford		Floyd-Warshall	
Benchmarks	$O(.)$	Actual	$O(.)$	Actual
input1.txt				

1 Introduction

- What is the problem that you are solving?
- What methods are you going to use to solve the problem?
- Why are these good methods to use?
- Why are you going to be using both of them?

2 Bellman-Ford

- What is the Bellman-Ford algorithm?
- Why are you using it?
- How did you adapt it to work for all-pairs as opposed to single source?
- What is the run-time of the algorithm before and after your adaptation?

3 Floyd-Warshall

- What is the Floyd-Warshall algorithm?
- Why are you using it?
- How is it better than the Bellman-Ford algorithm?
- What is the run-time of the algorithm?

4 Results

- Compare and contrast the two algorithms? What makes one more suited for this problem?
- What are their theoretical run-times (from the previous sections) and how do they compare?
- What are the actual run-times that you computed? Which method is better? Why?

5 Conclusions

- What did you find difficult about the assignment?
- What did you learn?
- What is one real-world problem that you think each of these problems would be good at solving?