

Jiacheng Yuan

ECE 368

## Project 2 Report

The compression and decompression programs compile without error and both compression and decompression work correctly. The compressed file with .huff name extension and compressed size while decompressed file back to original file size with .unhuff name extension. Running time for both compression and decompression are pretty low which I couldn't measure since my laptop runs pretty quick. It will shows error message when user type wrong filename or no filename was inputed.

The compression program gets to count the number of occurrences of each characters and stores them into an array. Then using the array to create each single node and construct binary tree using those nodes. After construct the binary tree, the code will start translate each character into huffman code and output them into a file. The binary tree will print into the file as header.

The decompression program do the things reversely. It takes input file then read through the header to get huffman code. Then it will start translate the file into normal file.