Joseph Juarez

Written Report

My algorithm works by using Sieve of Eratosthenes to find the prime numbers within an image’s width and height. It uses those primes to then embed a secret message into the image with ASCII characters. The ASCII characters get embed onto the color bytes of the image, it does this by taking the last two bites from the color data and replaces them with the ASCII code for that character. The end result of the embedding is an image that looks unaltered. When decoding an image it grabs the last two bytes from the color data and converts it into its ASCII representative. It will continue to collect them until it either reaches the end of the pictures width and height or until it finds a special ASCII character. The ASCII character my code looks for before ending its process is a square bracket: “[“. This will end the process short and provides that my algorithm performs at or better than O(width \* height).

Help I have received for this lab\project was obtained from Daniel Nipper, who helped me to understand the basics of what our Steganog classes were supposed to be doing. Wardell James also helped me to complete the Prime Iterator class, explaining to me how it worked. Lastly I received help form Mark Lopez, who helped me to understand concepts such as bit masking and bit shifting.

Width Height Length of Message Completion Time

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128 128 18 25ms

726 617 63 28ms