Project 4: Steganography

Abhishek Murugappan

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**Goal;**

The goal of this project was to encode a set of words into an image and then decode it. The project was meant to be used in a simple terminal interface and can convert .png files.

**Encoding:**

To encode a message into a .png file, you would first have to run the code in the terminal. In this case I am encoding the sentence, “Through action, a Man becomes a Hero, Through death, a Hero becomes a Legend, Through time, a Legend becomes a Myth, And by learning from the Myth, a Man takes action.” The input image I chose is ‘DragonicOverlordTheGreat.png’, and the output is ‘Legend DragonicOverlordTheGreat.png’. I use ‘#’ in the code as a delimiter to cut of any garbage data therefore I cannot use a sentence with ‘#’.

A screenshot of a computer

Description automatically generated with medium confidence

A picture containing text

Description automatically generatedA picture containing text

Description automatically generated Before: After:

**Decoding:**

To decode a message from an image, you must first run the app, choose the second option, and choose the file with the hidden message. In this case, the file that was just outputted in the encoding step will be used to get the message.

Text

Description automatically generated

**Conclusion:**

Steganography is a powerful tool that can bypass human perception to give messages in plain sight. The differences are indistinguishable unless you process the image. This takes morse code to the next level and allows for fully comprehensive messages to be sent through a single image.