

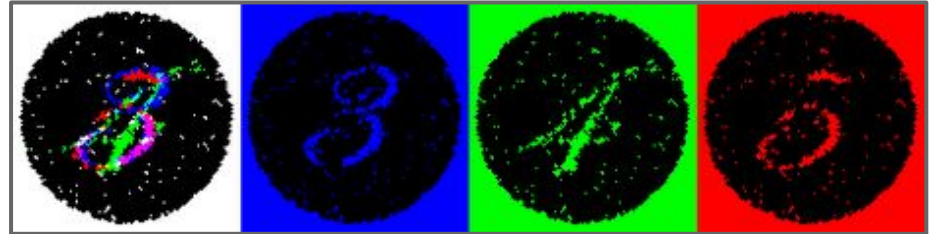
CryPic: A Web App for Securely Disguising Messages as Pictures

Brendan Van Allen

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Background

- Cryptography
 - “the enciphering and deciphering of messages in secret code or cipher” - Merriam-Webster
- Steganography
 - “the art or practice of concealing a message, image, or file within another message, image, or file” - Merriam-Webster



Under normal light, the numbers are indistinguishable. When placed under color-specific lights, the numbers are revealed.

Methodology

- Python Flask web application
 - Users input their message and key*
 - The message is encrypted and converted into pixels
 - A unique image is created from the pixels and presented to the user for download
 - Recipients can input the key and upload the image to view the message
- Modules
 - Pycrypto
 - hashlib
 - Flask

Demo

Conclusion

- Combines cryptography with steganography to synergize their security approaches
- Intuitive and efficient
- Future enhancements
 - Options for encryption method
 - Add option to use existing image
 - Mobile app

Thank you