

# CSI 394

## Final Handout

Your code should be in python. It should be on github. It should be well documented and described. Rough breakdown of your grade will be based on the appearance of the following:

1. Overall Wavelets System and Pieces (total: 50%)
  - (a) PPMs (total 5%)
    - i. Read in a PPM (2.5%)
    - ii. Write to a PPM (2.5%)
  - (b) RWV and Sampling (total: 35%)
    - i. Provide the averaging to downsize/sample an image (part of RWV-1)
    - ii. Provide an alternate method of producing a sampled image. Describe on github and implement your method in python. (5%)
    - iii. Compare and Contrast Sampling Methods - post in github - show images (5%)
    - iv. Convert PPM to RWV-1 Format (5%)
    - v. Write out an RWV-1 (5%)
    - vi. Read in an RWV-1 and convert to original PPM (5%)
    - vii. Convert PPM to RWV-n Formats and write out to file (5%)
    - viii. Read in an RWV-n and convert to original PPM (5%)
  - (c) RLE (total: 10%)
    - i. Fully Describe and document your RLE on github (5%)
    - ii. Provide a method to apply take an RWV-n and produce it in RLE (4%)
    - iii. Provide a method to retrieve an RWV-n from an RLE (1%)
2. Steganography (total: 10%)
  - (a) Fully Describe and Document Your Method (2%)
  - (b) Show before and after encoded messages in your github along with your description. (2%)
  - (c) Implement your Encoding method in python (5%)
  - (d) Implement a Decoding method in python (1%)
3. Final Projects (total: 20%)
  - (a) Fully described, implemented and documented on github (5%)
  - (b) Implementation (15%)
4. Participation, Classwork and Citizenship (20%)