CS 545 Black and White Assignment

Materials Due: September 29, 2015, 8:00 AM

Overview

Create a webpage to load an image and display it and its black-and-white equivalent.

Details

Create an html (text) file that ends with the extension ".html"
Create an associated JavaScript (text) file that ends with the extension ".js"

- **For content**
  - The page should ask the viewer to load an image into the page
  - The page should then display the loaded image
  - The page should also display the black and white equivalent of the image
  - The page should state the luminance algorithm it is using
    - e.g. $$Y_i = 0.30R_i + 0.59G_i + 0.11B_i$$
- **Requirements**
  - Page must be able to load user selected images
  - Page must display the selected image "as-is"
  - Page must display the black-and-white version of the selected image
  - Page must state the luminance algorithm being used
  - HTML and JS files must be in human readable form using "good" coding style
- **Bonus**
  - Provide an option for the user to select the number of grey levels in the resulting image
    - i.e. select 256, 128,… 2 → all integer powers of 2
  - See figure 2.21(a) in the text book (Digital Image Processing, Gonzalez & Woods) for an example of this
  - Provide an option for the user to save/download the resulting image via link/button press
  - Post the page to your personal website (provide URL in a text file when turned in)

Turn-In (to the appropriate D2L dropbox)

The finalized "page"

    Minimally this should be 2 files:
        The .html file and the .js file

    Optionally you may also use css and additional images
        Thus there may also be additional files

    Optionally you may post this page to your personal webpage
        Provide a text (.txt) file with the URL if you do so
        You still must provide the above zipped materials as well

Zip all files together before turning them in.
Be certain when unzipped the page will display correctly by double clicking on the html file.
Page should display correctly using any web browser
Likely Firefox or Chrome (maybe Safari) will be used for grading