CSE 107

Lab Assignment Report Format

Cover Page

- Lab title
- Name
- Date
- Abstract. A technical abstract consists of a couple of sentences that summarize a project. It should include:
    - A statement of the goal.
    - A *brief* description of the approach used to accomplish the goal.
    - A statement of whether the approach was successful including any informative or interesting results.

Technical Discussion

This section describes the approaches and techniques used. It should be at the algorithmic more than the implementation level; that is, it shouldn't just describe your code. It should include any key equations if appropriate. The length of this section will vary but will generally be from one half to two pages.

Discussion of Results

This section should discuss your results. This includes:

- Major findings in terms of the project's objectives.
- Interesting or unexpected findings.
- Answers to specific questions in the lab assignment.

The length of this section will vary but will generally be from one half to two pages.

Results

Include the images and figures as indicated in the lab assignment. They should be numbered so that they can be referenced by other sections of the report. They should also have brief, descriptive captions.

Code

Include listings of functions and test scripts as indicted in the lab assignment.

- Your code should be suitably commented. You don't necessarily need to comment every line but you should have sufficient comments to help someone understand what the various sections of your code do.
- Functions should contain a section of "help" comments at the top, called the prologue. These comments are displayed when the command `help myfunction` is issued in Matlab. The `help` command returns the block of contiguous comments after the function declaration in the .m file (if the block exists). Your prologue should include:
    - A short description of what your function does.
    - The calling syntax
    - The input and output parameters
    - A history of when the function was created and subsequent modifications.

(When you use `help` on a built-in Matlab function, you are actually seeing the prologue from the .m file for the function.)

An example of a prologue appears below.

```
function out = halftone(in)
% halftone  Converts a grayscale image to a binary image by using binary dot patterns to
%           render grayscale values. (more as appropriate).
%
% Syntax:
%   out = halftone(in)
%
% Input:
%   in = the grayscale image to be rendered. It should be of type uint8 and have values
%        in the range 0-255.
%
% Output:
%   out = the rendered binary image. It is of type uint8 and will have two values: 0 and
%         255.
%
% History:
%   S. Newsam     9/2/2018   created
%   S. Newsam     9/3/2018   fixed bug ...
```