Assignment 8 5 Points

With the prevalence of digital cameras, the number of digital images increases quickly, which raises the demand for image quality assessment in terms of blur. We can determine blur extent by examining some discriminative features of an image. One of such features is an edge. When blur occurs, both the edge count and its sharpness will change. Usually blurry images have less number of sharp edges. Using the edge detectors from lecture 13 design a blur detection scheme to detect if an image is blurred or not.

Goals:

This is a research based assignment which focuses on ideas.

Try to read about edge detection and its uses and document what you have read.

Design techniques/algorithms to use edge detection to solve the blurry image classification problem.

Modify the existing edge detector from lecture 13 to detect blurriness to some extent.

Try out different image samples.

Focus more on the ideas rather than the coding.

Keep a note of all the documents you have read and give references.

Write a 1-2 page report describing your research findings.

Document format: Below are the sections which should be present in you 1-2 page report.

Introduction

Background

Experimental setup/Algorithms

Results and conclusion

References

Submit your .py files, images you have used to test your code and report in pdf format after zipping them up as firstname_lastname_HW8.zip