**Web Content Checklist**

This is a suggested format; well-organized reports in a different format will not be penalized.

1. Begin with an Extended Abstract that lists:

a. The project title

Hand in the Dark: Standardized Hand Gesture Recognition

b. The name of each project member

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c. At least one contact email address

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d. The name of the course and university

EECS 349: Machine Learning

Northwestern University

e. A 3-4 paragraph synopsis of what this work is about

i. motivate the problem: (what problem are you trying to solve and why should we care?)

Motivation

The project aims at classifying images of human hand gesture that are collected through a standardized process. This technology is important because it can be potentially applied on a wide range of commands, UI’s, and communication programs. For example, people can use gesture to send simple commands to the computer via a camera without touching the keyboard.

ii. describe your solution in high level terms (what of learner(s) did you use, what types of features did you use)

Solution

The extracted feature from the gesture images is the grayed pictures, encoded as lists of pixels. We wrote a k-nearest neighbors to match the pixels

iii. describe how you tested and trained it (what your dataset was, how you measured success)

iv. Describe the key results (how well your solution performed in no more than a paragraph, along with your key findings, e.g. the most important features for the task)

f. At least one picture or graph that illustrates your work, with a caption explaining what the figure shows and its significance.

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