

Computer Science 799DD, Learning to See

<http://www.cs.umass.edu/~elm/learning2see/>

Assignment 1

One of the foci of this course is “sources of information”. Often, it is difficult to say what source of information a person is using to solve a problem. Other times, it is surprising what information we can get from the environment when it might appear, with respect to classical machine learning methods, that no information is available. This exercise is designed to get you to think about sources of information in various scenarios and how various sources can be used to solve problems in a non-traditional manner. **Comment briefly on each of the following scenarios.** (3 points each)

A. Recognition with no training data.

B. Depth with one eye.

C. Seeing with one pixel.

D. How many senses do you really have?

E. How might you recognize your mother?

F. How could you estimate the speed of something from a single image?