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EECS 349

Prof. Downey

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Status Report

Start by succinctly defining your task in terms of its inputs and outputs. For example, "our task is to predict the outcomes of baseball games based on previous game data." Then, briefly (2-3 sentences) say why your task is important.

Our task is to tell what kind of hand gesture a picture shows based on an existing dataset of hand gestures. It is important for its wide application, including user interface,

Describe the data set you have utilized to date. What types of attributes are there, how many attributes, how many examples, and how have you partitioned the data for the purpose of development/training/validation/testing.

The dataset we are using is a set of 100x100 hand gesture pictures. The attributes we are using are the arrays of pictures, indicating the pixels, and a gesture ID, indicating what kind of gesture the picture shows. Note that we preprocess the pictures such that the backgrounds of the pictures are black.

We have 200 pictures of 5 gestures, with 40 each for each gesture. Because of the limited number of instances, we use cross-validation for testing. (maybe)

Present your preliminary results on the task. Which learning techniques have you tried, and how have they performed? **Note:** Mention which existing machine learning software packages, if any, you are utilizing. You can use any existing packages you like for the project. Implementing learning algorithms can be, but does not need to be, part of the work you do for the project.

So far, we have used nearest neighbor because it fits our dataset the best. For any given picture, we look in the training set for a picture with the most common pixels, and return the id of the found gesture.

[Add performance]

#It seems that we should use more learning techniques?

#It also sounds like we can use ML software

#So we can throw the arrays into Weka and see which algorithm works the best?

Briefly (1-2 paragraphs) describe your plans for the remainder of the quarter, and list any questions or concerns you have.

Are we doing vid clip? :/