Progress:

Pre-processing- We have finished portions of the pre-processing techniques, specifically taking an image of text, changing the image from color to grayscale, separating it into lines of text, separating the lines into characters, and then resizing each character image to the neural network invariant size.

Neural Network- We have finished creating the neural network via CS181 pset 2. We are getting output when we run it (without any errors), but we are not sure if this output makes any sense. It works with and without a hidden layer.

Problems:

Pre-processing- We are not experiencing any major problems here, as we are pretty much done with this part.

Neural Network- First and foremost, we don't know if the output we are getting makes sense (ie: if our functions are actually working or just not throwing fatal errors). We would appreciate your input on how to figure this out. Furthermore, we aren't completely sure how to run the program (ie how to feed in the different images), nor are we sure how to do the actual training, which is our next step. We also are not sure how to adjust our learning rate; we currently are using 0.1 as a starting point, but don't know what would signal us to increase or decrease this number. We believe we will be able to figure out these latter problems by reading more of the CS181 lecture notes, but may come to you if we can't.

Teamwork: Amna and Diane are doing the image pre-processing, and Lisa and Kim are doing the letter-recognition neural network. There have been no issues. We have great times.

Plan:
Lisa and Kim will be training the neural network to find the correct learning rate / weights, etc. Amna and Diane will keep testing, optimizing the pre-processing, and will aid Lisa and Kim in the training.