Journal Report 3 9/16/19-9/20/19 Odin Woitek Computer Systems Research Lab Period 1, White

Daily Log

Monday September 16

Began working on image-patching. Ordered writers based off of how many contributions they had to the database and began to write a method that extracts lines from a given form.

Tuesday September 17

Mapped writers to their forms and mapped forms to a folder containing images of the lines that they are made up of.

Thursday September 19

Resized images of lines while maintaining aspect ratio and cropped them into standard 113x113 patches. Began working on saving these patches to a folder containing our data.

Timeline

Date	Goal	Met
September 9 -	Research handwriting identification	Yes, proposal was turned in
13	and finish proposal.	
September 16 -	Finish proposal and have a defined	Yes, proposal was turned in and the
20	plan on how to generate sample im-	plan was finished
	age patches.	
September 23 -	Implement plan for generating sam-	Yes, we were able to generate the
27	ple image patches.	sample image patches
September 23 -	Research Convolutional Neural Net-	
27	works	
September 30 -	Begin implementing Convolutional	
October 4	Neural Network	

Reflection

This week, I was able to successfully crop the 113x113 image patches from a given line, which we will need in order to create our dataset for training our neural network. Using pillow, I scaled the height of each line to 113 pixels, preserving the aspect ratio by scaling the width by whatever factor was necessary to scale the height. I then chose 16 random x-coordinates along the line between 0 and the length of the line minus 113, cropping a patch between that x-coordinate and the x-coordinate 113 pixels to the right.