

CEN 4725/ CEN 4726 Natural User Interaction – Assignment 1

Due 1/31/2020 11:59pm via Canvas

For this assignment, we will be implementing the Recognition Engine of the NUI pipeline using the \$P algorithm. You can use any of the implementations listed at <http://depts.washington.edu/madlab/proj/dollar/pdollar.html> OR program your own using the pseudocode provided (it is actually pretty easy). Your program should be a command line offline recognizer that meets the following requirements:

1. The executable should be named *pdollar*
2. Running *pdollar* with no arguments should print a help screen.
3. *pdollar* should support the following arguments

pdollar -t <gesturefile>

Adds the gesture file to the list of gesture templates

pdollar -r

Clears the templates

pdollar <eventstream>

Prints the name of gestures as they are recognized from the event stream.

What to hand in:

1. All code as a zip file named using your GatorLink Username : <gatorlink>.zip.
2. Include a makefile that compiles *pdollar*.
3. Include a text file named README.txt that has your name on line 1, your GatorLink as line 2, and how to execute *pdollar* as line 3. For example, if you used python, you would include the text:
Jaime Ruiz
jaime.ruiz
python *pdollar*

gesturefile format (examples to be provided):

GestureName

BEGIN

x,y <- List of points, a point per line

...

x,y

END

eventstream file format (examples to be provided):

MOUSEDOWN

x,y <- List of points, a point per line

MOUSEUP

RECOGNIZE <- When you see this you should output the result .

Example Run:

\$pdollar eventstream.txt

CROSS

CIRCLE

\$