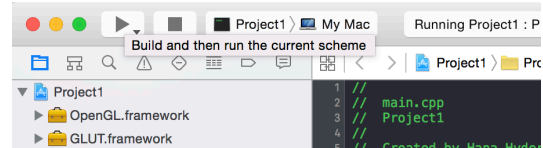


To run with Xcode:

Open the .xcodeproj file and click the play button up in the top bar as shown in the diagram to the right.



I also used the Eigen library for matrix calculations. (Available at:

[http://eigen.tuxfamily.org/index.php?title=Main\\_Page](http://eigen.tuxfamily.org/index.php?title=Main_Page))

Update this path (“/usr/local/include/Eigen/”) to where the Eigen folder is stored on your local desktop:

```
#include <ctime>
#include "/usr/local/include/Eigen/Dense"
```

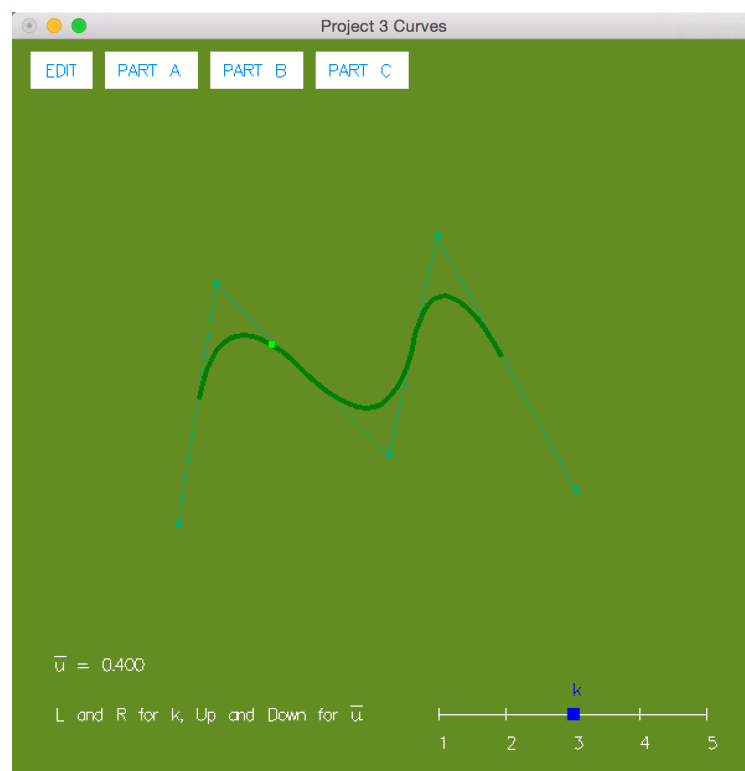
To run in terminal:

Using the makefile, type “make” then run the executable with “./a.out” Also update the aforementioned path name.

Entering points:

The landing screen is in the point entry mode. Simply click on the screen to create points. Once done entering points, click “Done.” This would enter edit mode—there is an ‘ADD’ and ‘TRASH’ button located at the bottom right corner. If a point is click, drag to the desired location and release. The point will have moved. Clicking ‘ADD’ will to go back to point entry mode. To delete a point, drag the point to the ‘TRASH’ button. This information is also provided in the instructions at the bottom left of the screen.

Run Part (a), simply click the ‘Part A’ button- this will generate the C2 continuous piecewise cubic



using a uniform knot sequence after clicking the vector points. The instructions in the terminal window indicate how to change this. Press 0 for uniform, 1 for chord length and 2 for centripetal parameterization.

For Part (b), click ‘Part B’ and move the left or right arrows to change the degree  $k$ , and the up or down arrows to change the value of  $u$  by 0.02.

For Part (c), click ‘Part C’, then select the vector directions. Press ‘E’ or ‘e’ to edit the knot sequence.

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May 15, 2016