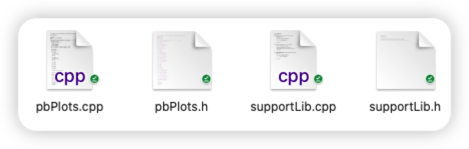
I utilize pbplot to generate the plot. 

And the output of the part 2 of the assignment is shown as below. (with probability of Alice is 0.18 and that of the other is 0.2, no\_to\_trials = 5000000.)