In my project, I will perform dynamic analysis with using my assignment of CS315 class. The goal of the assignment was to create a profiler that can detect performance hotspots within a project. There is a simple scenario project that is heavily CPU bound so that I had to build a profiler and integrate it to the scenario. I will use two different profilers to generate visualized graphs. One is a sampling profiler which I already made for the assignment. The other is an instrumented profiler which I will create for this project.

A sampling profiler is a profiler that periodically records the current instruction pointer’s location. With the number of this recorded Extended Instruction Pointer, the profiler can show a statistical probability of how long each function takes time. Using D3 library, I will draw this probability to the graph.

An instrumented profiler is a profiler that calculates total CPU cycle of each function and total measure time of each function. As same as sampling profiler, I will generate the graph with these data.

My project will be NPM project with using React library. The project will need the output of the profiler project which means this project should be performed after running the profiler project.