Hi, my name is 黃敬麟. I’m from the Department of Mathematics in NTU. My topic is Rubiks Cube visualization in R. And this is my github website. Katasuke/rubikscube

My project is to visualize and simulate the Rubik’s Cube in R and use shiny package to build up an interactive web application.

And the results are shown here. The figure on the left hand side is the application which you can rotate the cube by clicking the bottoms, and these symbols are the standard notation of Rubik’s cube. The figure on the right hand side is another version which you can rotate the cube by input the scramble formula. When we scramble the cube by the formula, we can use this application to check whether we do the correct scramble.

Here is my R code structure. First, I construct a cubic array like this. Each number represents a color. And I use the function in rgl package to plot the cube. Rotate function is constructed by reverse and transpose function. Shiny template is found on the Internet.