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I was not finding any statistically significant difference in running time for the small matrices I made so I tested from  $n = 2$  to  $n = 500$ . To do this, I packed the program into a jar so it could be run easily. To create this many valid matrices, I wrote a python script to generate a matrix of given dimensions where each element is a random number greater than both the element above and to the left of it by 1 - 4. (gendata.py)

In order to test the complexity of the program, I used a bash script to run the program, parse the runtime from the output, then write it to a csv file for easy analysis. The script tested 3 randomly selected numbers from each matrix 3 times, writing the difference in `System.nanoTime()`.