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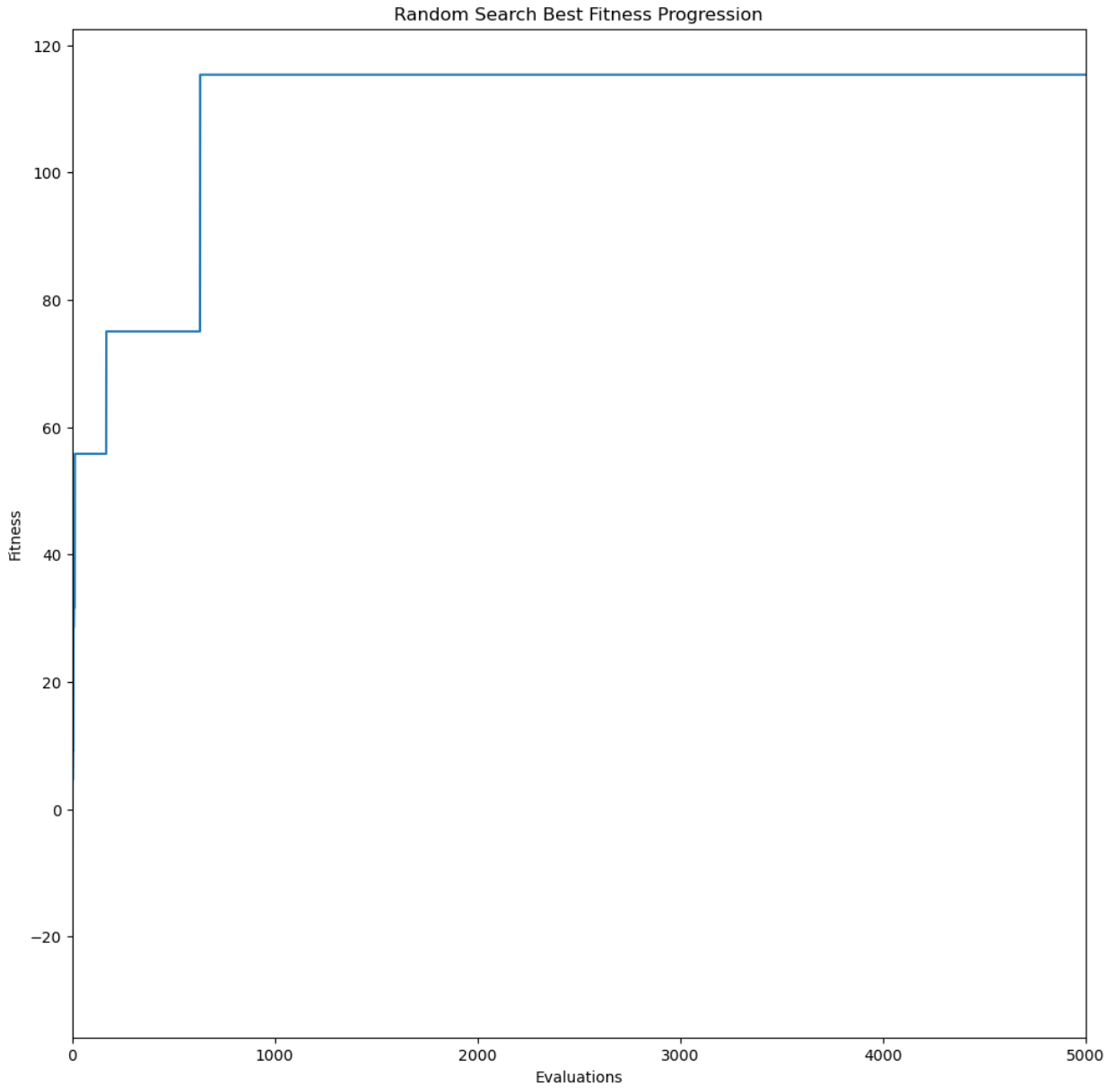
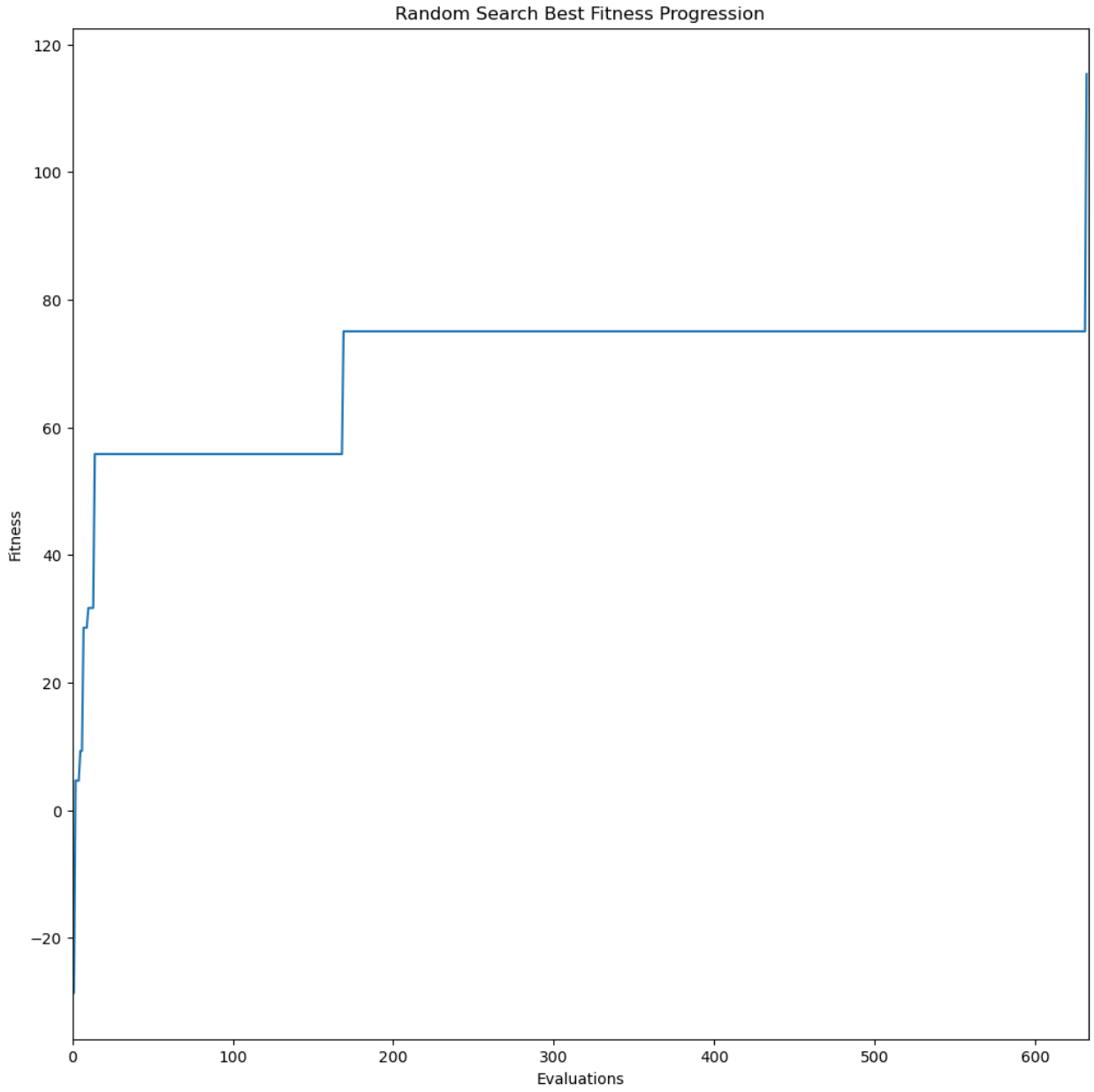
COMP 5660 Fall 2023 Assignment 2a

Here is the stairstep plot from the notebook:



Here is the same plot except I cut off the last ~4300 evals so you could get a closer look at the beginning of the plot. Not super useful in hindsight but here ya go:



The data used for the plot:
(0, -28.62857142857143),(2, 4.651162790697675),(5, 9.30232558139535),(7, 28.6046511627907),(10, 31.705426356589147),(14, 55.81395348837209),(169, 75.03875968992247),(632, 115.34883720930233)

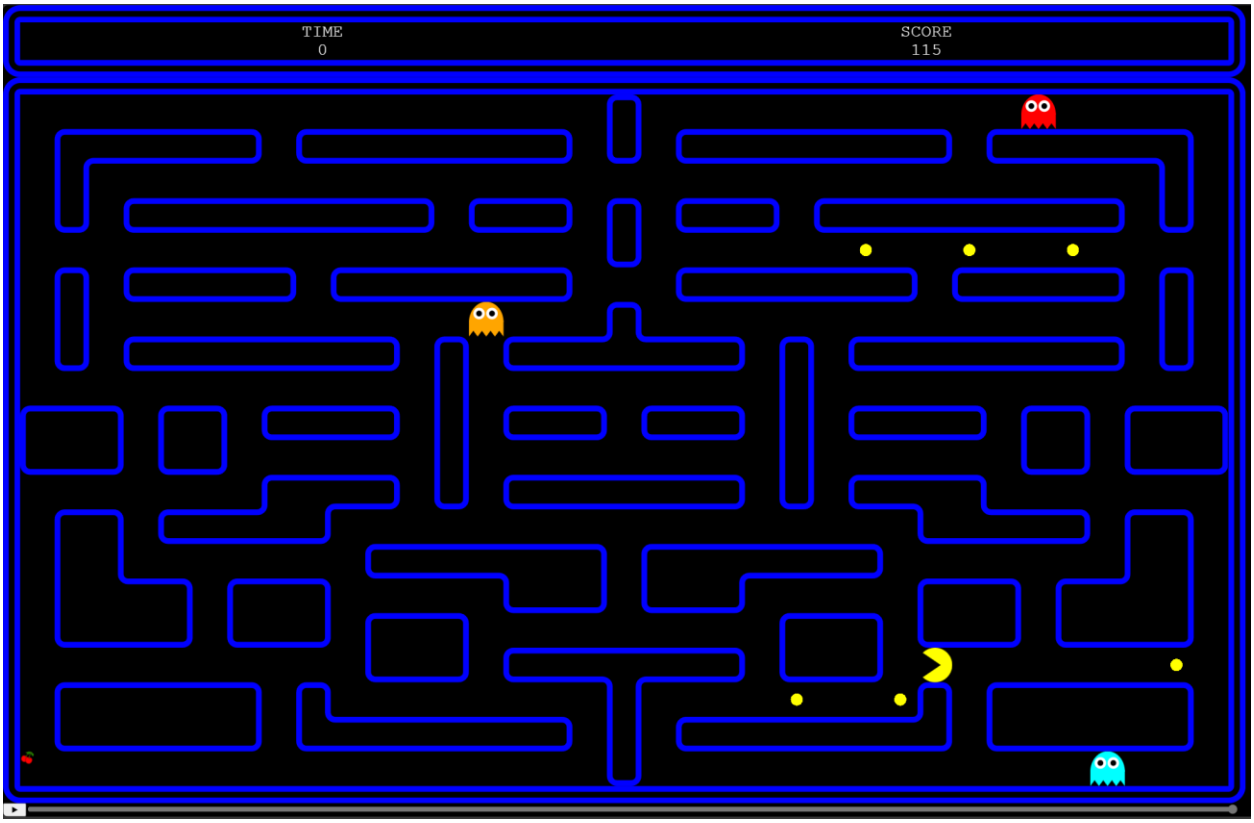
Fittest Each Run: [115.34883720930233, 94.49612403100775, 100.69767441860465, 103.02325581395348, 106.74418604651163, 96.82170542635659, 82.17054263565892, 99.92248062015504, 86.66666666666667, 113.7984496124031]

Winner on the first try

Standard deviation: 10.0854

Mean: 99.969

Agent performance analysis:
Pacman wasted a lot of time between needlessly holding his position and going back and forth across already cleared lanes, but what else do you expect from random search. This Pacman seemed to clear a quadrant at time before moving on. With plenty of ‘pacing’ in between to waste time of course. Also, there were a good bit of close calls with ghosts. No agent across any of my initial experiments were able to completely clear a stage before time hit 0.



So close