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Local Search 1

Algorithm: I decided to go with the algorithm that I understood most which was the hill climb algorithm. There were several components of my objective function. I used Manhattan distance to adjust my reward and figure out how to get closer to the goal state. When generating neighbors, I checked to see which moves would be out of bounds. If the move was out of bounds or pointless, then the action at that index was randomly changed. This was done several times to make neighbors that progressively get better scores. These put together formed an objective function that allowed for scores in the -20s typically.