

Ms. Pac-Man Game State: 29 state variables for each direction

Index	Binary (0,1)	Real (0-1)	Description
			Global
0		x	Proportion of regular pills left in maze
1		x	Proportion of power pills left in maze
2		x	Proportion of ghosts that are edible
3		x	Proportion ghost edible time remaining
4	x		1 if any ghost is edible, 0 otherwise
5	x		1 if four threats are outside the lair, 0 otherwise
6	x		1 if Ms. Pac-Man is within 10 steps of a power pill, 0 otherwise
			Directed, relative to a specific direction from Ms. Pac-Man's current position
7		x	Distance to nearest regular pill (in given direction)
8		x	Distance to nearest power pill
9		x	Distance to nearest maze junction
10		x	Distances to the closest ghost
11	x		1 if closest ghost is approaching, 0 otherwise
12	x		1 if a directional path to closest ghost contains no junctions, 0 otherwise
13	x		1 if closest ghost is edible, 0 otherwise
14		x	Distances to the second closest ghost
15	x		1 if second closest ghost is approaching, 0 otherwise
16	x		1 if a directional path to second closest ghost contains no junctions, 0 otherwise
17	x		1 if second closest ghost is edible, 0 otherwise
18		x	Distances to the third closest ghost
19	x		1 if third closest ghost is approaching, 0 otherwise
20	x		1 if a directional path to third closest ghost contains no junctions, 0 otherwise
21	x		1 if third closest ghost is edible, 0 otherwise
22		x	Distances to the fourth closest ghost
23	x		1 if fourth closest ghost is approaching, 0 otherwise
24	x		1 if a directional path to fourth closest ghost contains no junctions, 0 otherwise
25	x		1 if fourth closest ghost is edible, 0 otherwise
26		x	Proportion of pills on the path in the given direction that has the most pills
27		x	Proportion of junctions on the path in the given direction that has the most junctions
28		x	Proportion of junctions reachable from next nearest junction that Ms. Pac-Man is closer to than a threat ghost