enqueue all of its unvisited neighbours, which will have a path length of $i + 1$. Because the fringe is FIFO, we will dequeue all cells at level i before we dequeue any cells at level $i + 1$. It turns out that this is a simplified, special case of Dijkstra's algorithm for finding the shortest path in a graph. You'll learn more about this next year.

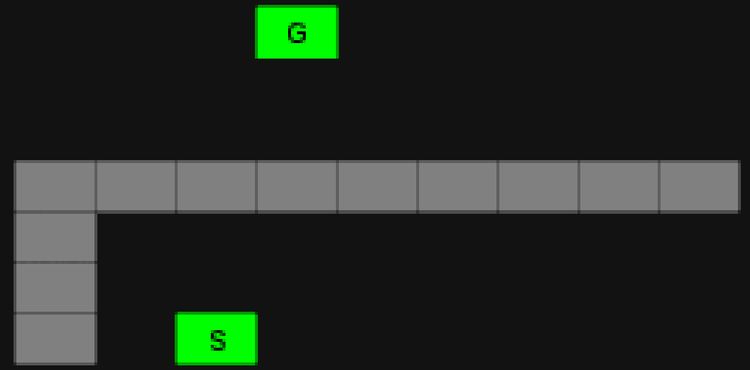

Figure 6.2: BFS Wavefront

6.5.3 Examples