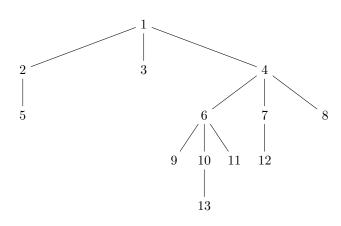
## NOTES ON QUEUES AND BREATH FIRST SEARCH

ERIC MARTIN



Dequeuing a path from the front of the queue (right of list) and enqueuing its extensions to the back of the queue.

[[1]]

$$[[1,4],[1,3]]$$
  $[1,2]$ 

$$[[1,2,5],[1,4]]$$
  $[1,3]$ 

$$[1,2,5]$$

$$\big[[1,4,8],[1,4,7],[1,4,6],[1,2,5]\big]$$

$$\big[[1,4,8],[1,4,7],[1,4,6]\big] \hspace{1.5cm} [1,2,5]$$

$$[[1,4,8],[1,4,7]] [1,4,6]$$

$$\big[[1,4,6,11],[1,4,6,10],[1,4,6,9],[1,4,8],[1,4,7]\big]$$

$$\begin{bmatrix} [1,4,6,11], [1,4,6,10], [1,4,6,9], [1,4,8] \end{bmatrix}$$
 
$$\begin{bmatrix} [1,4,7,12], [1,4,6,11], [1,4,6,10], [1,4,6,9], [1,4,8] \end{bmatrix}$$
 
$$\begin{bmatrix} [1,4,7], [1,4,6], [1,4,6], [1,4,6], [1,4,6], [1,4,8] \end{bmatrix}$$

$$[[1,4,7,12],[1,4,6,11],[1,4,6,10],[1,4,6,9]]$$
 [1,4,8]

$$[[1,4,7,12],[1,4,6,11],[1,4,6,10]]$$
 [1,4,6,9]

$$[[1,4,7,12],[1,4,6,11]]$$
 [1,4,6,10]

$$[[1,4,6,10,13],[1,4,7,12],[1,4,6,11]]$$

$$[[1,4,6,10,13],[1,4,7,12]]$$
 [1,4,6,11]

$$[[1,4,6,10,13]] [1,4,7,12]$$

$$[] [1,4,6,10,13]$$

COMP9021 Principles of Programming