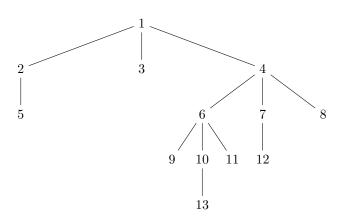
## NOTES ON QUEUES AND BREATH FIRST SEARCH

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]]

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

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

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

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

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

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

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

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

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

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

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

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

$$\big[[1,4,6,10,13],[1,4,7,12]\big] \\ \hspace*{2cm} [1,4,6,11]$$

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

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

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