

Feb 28

BFS ( $G, s$ ) //  $G$  is in adj. list format

0.  $cc[s] \leftarrow T$  and  $cc[u] \leftarrow F \quad \forall u \neq s \in V$

1.  $i \leftarrow 0$

2.  $L_0 \leftarrow \{s\}$

3. While  $L_i \neq \emptyset$  <sup>empty set</sup>

3.1  $L_{i+1} \leftarrow \{ \}$

3.2 for all  $u$  in  $L_i$

for  $(u, w)$  in  $E$

if  $cc[w] = F$

test of equality

$cc[w] \leftarrow T$

add  $w$  to  $L_{i+1}$

3.3  $i++$

4. Return  $cc$