## Goals

- Analyze graph search algorithms

$\mathbf{A}:$| vertex | adjacency list |
| :---: | :---: |
| $s$ | $u, y$ |
| $u$ | $v, z, s$ |
| $y$ | $s, z$ |
| $v$ | $w, a, u$ |
| $z$ | $w, u, y$ |
| $a$ | $v, t$ |
| $w$ | $v, t, z$ |
| $t$ | $a, w$ |

Provide the sequence of visited vertices if we use Breadth First Search on this graph, starting at s , and use the order given by the adjacency lists.

| vertex | adjacency list |
| :---: | :---: |
| $s$ | $u, y$ |
| $u$ | $v, z, s$ |
| $y$ | $s, z$ |
| $v$ | $w, a, u$ |
| $z$ | $w, u, y$ |
| $a$ | $v, t$ |
| $w$ | $v, t, z$ |
| $t$ | $a, w$ |

Provide the sequence of visited vertices if we use Breadth First Search on this graph, starting at $s$, and use the order given by the adjacency lists.

$$
s, u, y, v, z, w, a, t
$$

