

Graph algorithm

Computer Systems Lab I

September 29, 2023

1 Write a Program to perform breadth first search on a graph

- Create any Graph.
- Search for 3 items (2 present and 1 absent from graph)

2 Write a program to detect loops in graphs using Breath first search.

- Use two graphs with loops and np loops.

Note: Print a graphical diagram of the graph using `networkx.show()`.

BFS algorithm:

1. Initialize a visited array, V and a Queue, Q.
2. Insert root node in V and Q.
3. Take first element of Q, as N.
4. For all neighbour of N, if not present in visited add to V and Q.
5. Delete N from queue.
6. Repeat from step 3 till Q is empty.
