

DFS on Tree

```
dfs(vertex v) {  
    S = new Stack  
    visit v  
    S.push(v)  
    while (stack is not empty) {  
        if(all TOS neighbors have been visited) {  
            S.pop  
        }  
        else {  
            select u, an unvisited neighbor of TOS  
            visit u  
            S.push(u)  
        }  
    }  
}
```

