403. Frog Jump <hard>

class Solution {

public:

bool canCross(vector<int>& stones) {

set<pair<int,int>> visited;

unordered\_set<int> stoneSet(stones.begin(),stones.end());

stack<pair<int,int>> S;

S.push({0,0});

int end = stones[stones.size()-1];

while(!S.empty()) {

pair<int,int> p = S.top();

S.pop();

if(visited.count(p))

continue;

visited.insert(p);

int loc = p.first;

int steps = p.second;

if(loc == end)

return true;

else if(loc < end) {

for(int i = steps-1; i < steps+2; i++){

if(i <= 0)

continue;

if(stoneSet.count(loc+i))

S.push({loc+i, i});

}

}

}

return false;

}

};