

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 #include <vector>
4 #include <unordered_map>
5 using namespace std;
6
7 // O(n) time | O(n) space
8 vector<int> largestRange(vector<int> array) {
9     vector<int> bestRange = {};
10    int longestLength = 0;
11    unordered_map<int, bool> nums = {};
12    for (int num : array) {
13        nums[num] = true;
14    }
15    for (int num : array) {
16        if (!nums[num]) {
17            continue;
18        }
19        nums[num] = false;
20        int currentLength = 1;
21        int left = num - 1;
22        int right = num + 1;
23        while (nums.find(left) != nums.end()) {
24            nums[left] = false;
25            currentLength++;
26            left--;
27        }
28        while (nums.find(right) != nums.end()) {
29            nums[right] = false;
30            currentLength++;
31            right++;
32        }
33        if (currentLength > longestLength) {
34            longestLength = currentLength;
35            bestRange = {left + 1, right - 1};
36        }
37    }
38    return bestRange;
39 }
40
```