AlgoExpert Quad Layout JavaScript 12px Sublime Monokai 00:00:00

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Solution 1

```
{\tt 1}\, // Copyright {\tt 0} 2020 AlgoExpert, LLC. All rights reserved.
 3 // O(n) time | O(n) space
 4 function waterArea(heights) {
    const maxes = new Array(heights.length).fill(0);
     let leftMax = 0;
    for (let i = 0; i < heights.length; i++) {</pre>
       const height = heights[i];
9
       maxes[i] = leftMax;
10
       leftMax = Math.max(leftMax, height);
11
      let rightMax = 0;
12
13
      for (let i = heights.length - 1; i >= 0; i--) {
14
       const height = heights[i];
15
       const minHeight = Math.min(rightMax, maxes[i]);
16
       if (height < minHeight) {</pre>
17
        maxes[i] = minHeight - height;
18
       } else {
19
         maxes[i] = 0;
20
21
       rightMax = Math.max(rightMax, height);
22
23
      return maxes.reduce((a, b) => a + b, 0);
24 }
25
26 exports.waterArea = waterArea;
```