Contiguous Subarrays

You are given an array **arr** of **N** integers. For each index **i**, you are required to determine the number of contiguous subarrays that fulfill the following conditions:

- The value at index **i** must be the maximum element in the contiguous subarrays, and
- These contiguous subarrays must either start from or end on index **i**.

Signature
```
int[] countSubarrays(int[] arr)
```

Input

- Array **arr** is a non-empty list of unique integers that range between 1 to 1,000,000,000
- Size **N** is between 1 and 1,000,000

Output
An array where each index **i** contains an integer denoting the maximum number of contiguous subarrays of **arr**[**i**]

Example:
arr = `[3, 4, 1, 6, 2]`
output = `[1, 3, 1, 5, 1]`

Explanation:

- For index 0 - `[3]` is the only contiguous subarray that starts (or ends) with 3, and the maximum value in this subarray is 3.
- For index 1 - `[4], [3, 4], [4, 1]`
- For index 2 - `[1]`
- For index 3 - `[6], [6, 2], [1, 6], [4, 1, 6], [3, 4, 1, 6]`
- For index 4 - `[2]`

So, the answer for the above input is `[1, 3, 1, 5, 1]`