Nearest Smaller Values  
Problem ID: nearestsmallestvalues1645

Given an array of \( n \) integers, your task is to find for each array position the nearest position to its left having a smaller value.

**Input**
The first input line has an integer \( n \): the size of the array.
   The second line has \( n \) integers \( x_1, x_2, \ldots, x_n \): the array values.

**Output**
Print \( n \) integers: for each array position the nearest position with a smaller value. If there is no such position, print 0.

**Constraints**
- \( 1 \leq n \leq 2 \cdot 10^5 \)
- \( 1 \leq x_i \leq 10^9 \)

<table>
<thead>
<tr>
<th>Sample Input 1</th>
<th>Sample Output 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 2 5 1 4 8 3 2 5</td>
<td>0 1 0 3 4 3 3 7</td>
</tr>
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</table>