

1402. Count Square Submatrices with All Ones

Difficulty : Medium

<https://leetcode.com/problems/count-square-submatrices-with-all-ones>

Given a $m * n$ matrix of ones and zeros, return how many **square** submatrices have all ones.

Example 1:

Input: matrix =

```
[
  [0,1,1,1],
  [1,1,1,1],
  [0,1,1,1]
]
```

Output: 15

Explanation:

There are **10** squares of side 1.

There are **4** squares of side 2.

There is **1** square of side 3.

Total number of squares = $10 + 4 + 1 = 15$.

Example 2:

Input: matrix =

```
[
  [1,0,1],
  [1,1,0],
  [1,1,0]
]
```

Output: 7

Explanation:

There are **6** squares of side 1.

There is **1** square of side 2.

Total number of squares = $6 + 1 = 7$.

Constraints:

- $1 \leq \text{arr.length} \leq 300$
- $1 \leq \text{arr}[0].\text{length} \leq 300$
- $0 \leq \text{arr}[i][j] \leq 1$