Problem Link:

<https://leetcode.com/problems/count-square-submatrices-with-all-ones/description/?envType=daily-question&envId=2025-08-20>

Solution:

class Solution {

public:

int countSquares(vector<vector<int>>& matrix) {

int m = matrix.size();

int n = matrix[0].size();

int c = 0;

vector<vector<int>> dp(m, vector<int>(n, 0));

for(int i = 0; i < m; ++i)

{

for(int j = 0; j < n; ++j)

{

if(matrix[i][j] == 1)

{

if(i == 0 || j == 0)

{

dp[i][j] = 1;

}

else

{

dp[i][j] = min({dp[i-1][j], dp[i][j-1], dp[i-1][j-1]}) + 1;

}

c += dp[i][j];

}

}

}

return c;

}

};