

# [每日 LeetCode] 867. Transpose Matrix

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原文链接: <https://ld246.com/article/1554992265298>

来源网站: [链滴](#)

许可协议: [署名-相同方式共享 4.0 国际 \(CC BY-SA 4.0\)](#)

Description:

Given a matrix **A**, return the transpose of **A**.

The transpose of a matrix is the matrix flipped over it's main diagonal, switching the row and column indices of the matrix.

### Example 1:

Input: [[1,2,3],[4,5,6],[7,8,9]]

Output: [[1,4,7],[2,5,8],[3,6,9]]

### Example 2:

Input: [[1,2,3],[4,5,6]]

Output: [[1,4],[2,5],[3,6]]

### Note:

- 1 <= A.length <= 1000
- 1 <= A[0].length <= 1000

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思路：本题要求数组的转置。问题不大，主要注意C++中二维数组的初始化操作

```
vector<vector<int>> ret(column, vector<int>(row,0));
```

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### C++代码

```
class Solution {
public:
    vector<vector<int>> transpose(vector<vector<int>>& A) {
        int column = A[0].size(), row = A.size();
        vector<vector<int>> ret(column, vector<int>(row,0));
        for (int i = 0; i < row; i++){
            for (int j = 0; j < column; j++){
                ret[j][i] = A[i][j];
            }
        }
        return ret;
    }
};
```

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运行时间：28ms

运行内存：11.4M