链滴

[每日 LeetCode] 53. Maximum Subarray

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来源网站：链滴

Description：

Given an integer arraynums, find the contiguous subarray (containing at least one number) w ich has the largest sum and return its sum.

Example:

Input: [-2,1,-3,4,-1,2,1,-5,4],
Output: 6
Explanation: [4,-1,2,1] has the largest sum = 6.

Follow up:

If you have figured out the O(n) solution, try coding another solution using the divide and co quer approach, which is more subtle.

思路：本题要求数组的最大子序列和，考虑使用常规方法。定义两个变量res和sum，其中res保存最要返回的结果，即最大的子数组之和，sum初始值为0，每遍历一个数字num，比较sum + num和n m中的较大值存入sum，然后再把res和sum中的较大值存入res，以此类推直到遍历完整个数组，可到最大子数组的值存在res中，返回res即可。

C++代码

```
class Solution {
public:
    int maxSubArray(vector<int>& nums) {
        int res = INT_MIN, sum = 0;
        for (int num : nums) {
            sum = max(sum + num, num);
            res = max(res, sum);
        }
        return res;
    }
};
```

运行时间：12ms

运行内存：10.2M