

一、题目说明

题目98. Validate Binary Search Tree, 给一个二叉树, 判断是否是二叉搜索树。题目难度是Medium!

二、我的解答

这个题目, 学过数据结构, 会二叉树的中序遍历, 不是很难。代码如下:

```
class Solution{
public:
    //中序遍历
    bool isValidBST(TreeNode* root){
        stack<TreeNode*> st;
        TreeNode* p = root,*pre = NULL;
        if(p != NULL){
            while(p!=NULL){
                st.push(p);
                p = p->left;
            }
            while(! st.empty()){
                p = st.top();
                st.pop();

                if(pre!=NULL && pre->val>=p->val){
                    return false;
                }
                pre = p;

                p = p->right;
                while(p !=NULL){
                    st.push(p);
                    p = p->left;
                }
            }
        }
        return true;
    }
};
```

性能如下:

```
Runtime: 16 ms, faster than 65.34% of C++ online submissions for Validate Binary Search Tree.
Memory Usage: 20.6 MB, less than 91.67% of C++ online submissions for Validate Binary Search Tree.
```

三、优化措施

上面是非递归算法, 递归更简单, 就不写了。