### 46. Permutations

Given an array nums of distinct integers, return *all the possible permutations*. You can return the answer in **any order**.

## **Example 1:**

```
Input: nums = [1,2,3]
Output: [[1,2,3],[1,3,2],[2,1,3],[2,3,1],[3,1,2],[3,2,1]]
```

# Example 2:

```
Input: nums = [0,1]
Output: [[0,1],[1,0]]
```

## **Example 3:**

```
Input: nums = [1]
Output: [[1]]
```

#### **Constraints:**

- 1 <= nums.length <= 6
- $\bullet$  -10 <= nums[i] <= 10
- All the integers of nums are **unique**.