

(cnt is basically j / designed to avoid nested loop)

{ 3 4 0 0 5 7 8 0 1 2 } arr  
 i 0 1 2 3 4 5 6 7 8 9  
 cnt

One Traversal according to i pointer

swap arr[cnt] and arr[i] iff the current element is non-zero; the pushing upon zeroes will be done automatically when the cnt variable got incremented (the swapping of non-zero elements will be done before incrementing cnt)

{ 0 1 2 3 4 5 6 }  
 { 1 2 0 4 3 0 5 0 }  
 cnt = 0 i = 0  
 1 1 \* i is incremented BEFORE cnt  
 2 2  
 2) ++ 3  
 3 4  
 4) ++ 5  
 5 6

\* Seems complex, but the iteration can be instinctively done w/ loops (alteration)

\* use a temporary variable to swap 2 elements