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Abstract

Optimization of sorting algorithms is an ongoing research and delivers faster and less space consuming algorithms. The Counting sort algorithm is an integer sorting algorithm and is a very simple and effective way to sort numbers based on their key value. It uses three arrays for computation but in a large input set it can consume a significant amount of memory. This paper puts forward a method to reduce the amount of space required to perform the computation. It reduces the number of arrays or memory required for computation by using just two arrays instead of three, i. e. the input and the count array, removing the need of the third output array.

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Index Terms

Computer Science

Algorithms

Keywords

Algorithms; Counting Sort; Design; Optimization; Performance; Sorting