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Hybrid Sort HW2

Sec : 2 - BN : 31

Hybrid Sort

My approach takes the best out of merge sort, quick sort, and insertion sort and mixes them together to create an algorithm which give a good performance no matter the data being used.

The main idea is merging two unsorted lists of data like merge sort, but when data is small the difference between quick and merge and insertion fades away.

So using this information when the size of the arr gets smaller that 500 inclusive I get the average of the first 10 numbers if and then see if the $|arr_{end} - average| > 200,000$ then I use insertion sort because using quick sort such a large pivot would be inefficient otherwise use insertion sort.

The result is an algorithm with a performance comparable to merge sort and quick sort in unsorted data, and faster performance that merge and quick sort in sorted data.