

Introduction to Algorithms (CLRS)

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1 Sorting and Order Statistics

1.1 Heapsort

Binary heap

- stores binary tree in an array (index 0 not filled)
- uses bitshift operations to traverse which are fast

Heap property

- the children of every node are smaller than the node
- **max-heapify** has the recurrence relation $T(n) \leq T(2n/3) + \mathcal{O}(1)$