

SORTING



Algorithms & Analysis

I G N O R S T



Algorithms & Analysis

“By understanding sorting, we obtain an amazing amount of power to solve other problems.”

– STEVEN SKIENA, THE ALGORITHM DESIGN MANUAL

(Some) Classic Sorting Algorithms

- **Bubble**
- **Selection**
- **Insertion**
- **Merge: 1945 Jon von Neumann**
- **Quick: 1959 Tony Hoare**
- **Heap: 1964 J. W. J. Williams**
- **Radix: 1887 Hermann Hollerith, for his Tabulating Machine**
- **Bogo?**

Bubble Sort

6 5 3 1 8 7 2 4

Bubble Sort

- 1. Loop over elements**
- 2. Swap anything that's out of order**
- 3. Repeat 1-2 until there are no swaps**

Big O

