**Bogo Sort**

**Introduction:**

Bogo Sort (also stupid sort, slow sort, random sort, shotgun sort or monkey sort) is a particularly ineffective sorting algorithm based on the generate and test paradigm. Bogo Sort randomly shuffles a set of numbers again and again; and compares them until it's sorted.

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| --- | --- |
| **Class** | [Sorting algorithm](http://en.wikipedia.org/wiki/Sorting_algorithm) |
| **Data structure** | [Array](http://en.wikipedia.org/wiki/Array_data_structure) |
| [**Worst case performance**](http://en.wikipedia.org/wiki/Best,_worst_and_average_case) | Unbounded[[1]](http://en.wikipedia.org/wiki/Bogosort#cite_note-Fun07-1) |
| [**Best case performance**](http://en.wikipedia.org/wiki/Best,_worst_and_average_case) | *θ*(*n*)[[1]](http://en.wikipedia.org/wiki/Bogosort#cite_note-Fun07-1) |
| [**Average case performance**](http://en.wikipedia.org/wiki/Best,_worst_and_average_case) | *O*((*n*+1)!)[[1]](http://en.wikipedia.org/wiki/Bogosort#cite_note-Fun07-1) |
| [**Worst case space complexity**](http://en.wikipedia.org/wiki/Best,_worst_and_average_case) | *O(n)* |

**WEb page:**

The webpage is built using HTML, CSS and JavaScript. For better outlook, bootstrap theme was used.

In the simulation part, HTML5 Canvas was used to draw rectangle to represent the numbers and with JavaScript, the animation part has been completed.

**Basic Simulation Algorithm/code:**

function bogoSort(){

if(!isSorted()){

for(var i = 0; i < arr.length; i++)

{

tempArr[i] = new key(arr[i].key);

}

for(var i = 0; i < arr.length; i++){

var pos = Math.floor(Math.random()\*tempArr.length);

arr[i].setKey(tempArr[pos].key);

tempArr.splice(pos, 1);

}

paintAllComponents();

}

else {

clearInterval(startTimer);

makeAllButtonsInvisible();

setTimeout(function(){stopAndClear();}, 3000);

}

}

function isSorted(){

for(var i = 0; i < arr.length-1; i++){

if(arr[i].key > arr[i+1].key)

return false;

}

return true;

}

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