

Thomas Pearson

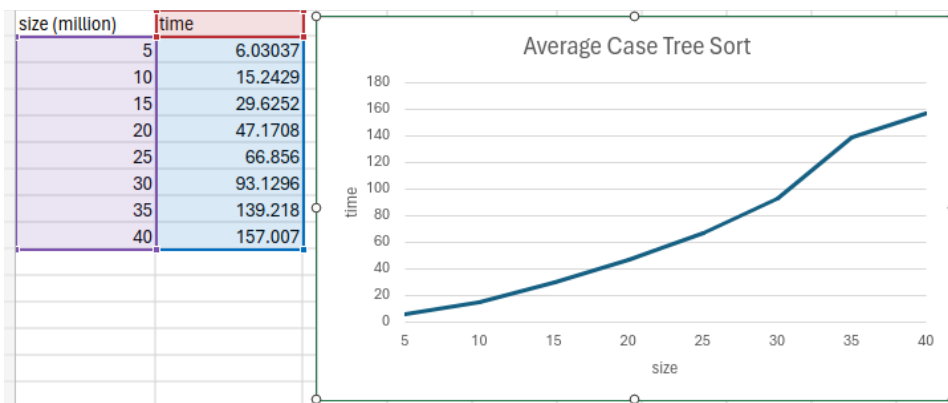
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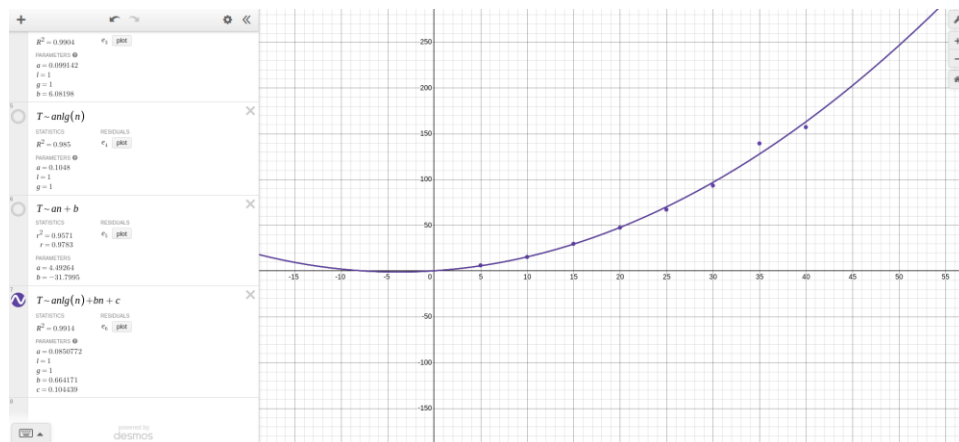
Don Spickler

Analysis of Sorting Algorithms

Tree Sort 1



This is the graph of the average case for the first sort. We tested different array sizes in millions with randomized values between 1- 1000000 to create more accurate results. Time is in seconds



This is the resulting line of best fit for the average case of our algorithm

The closest lines resulted from $an^2 + bn + c$, and $anlg(n) + bn + c$. The resulting coefficients for a , b , and c were: $a = 0.0850772$, $b = 0.664171$, and $c = 0.104439$ with an R^2 of 0.9914.