

Results for the extraLargeArray

insert.unshift - 439.9488 ms

append.push - 2.5377 ms

Results for the largeArray

insert.unshift - 4.6728 ms

append.push - 677.5  $\mu$ s

Results for the mediumArray

insert.unshift - 182.6  $\mu$ s

append.push - 152.8  $\mu$ s

Results for the smallArray

insert.unshift - 48.8  $\mu$ s

append.push - 86  $\mu$ s

Results for the tinyArray

insert.unshift - 35.4  $\mu$ s

append.push - 84.7  $\mu$ s

The Insert Function definitely begins taking much longer with larger arrays, this is especially notable after the mediumArray. The Append Function handles the Time Complexity much smoother when

dealing with larger arrays. However, there is slight to no difference in Time with the Append Function

with the smaller arrays and in fact, takes longer than the Insert Function on those smaller Arrays.

From my understanding, the Insert Function is taking so much longer with the larger array due to the

fact the data is being inserted with .unshift, which adds the data to the beginning of the array, therefore changing the index of every item in the array. Whereas the Append function is only pushing

the data to the end of the array, where only the data is being considered instead of each item in the array.

.unshift =  $O(n)$

.push =  $O(1)$