

# ICCS315: Assignment 1

Vanessa Rujipatanakul

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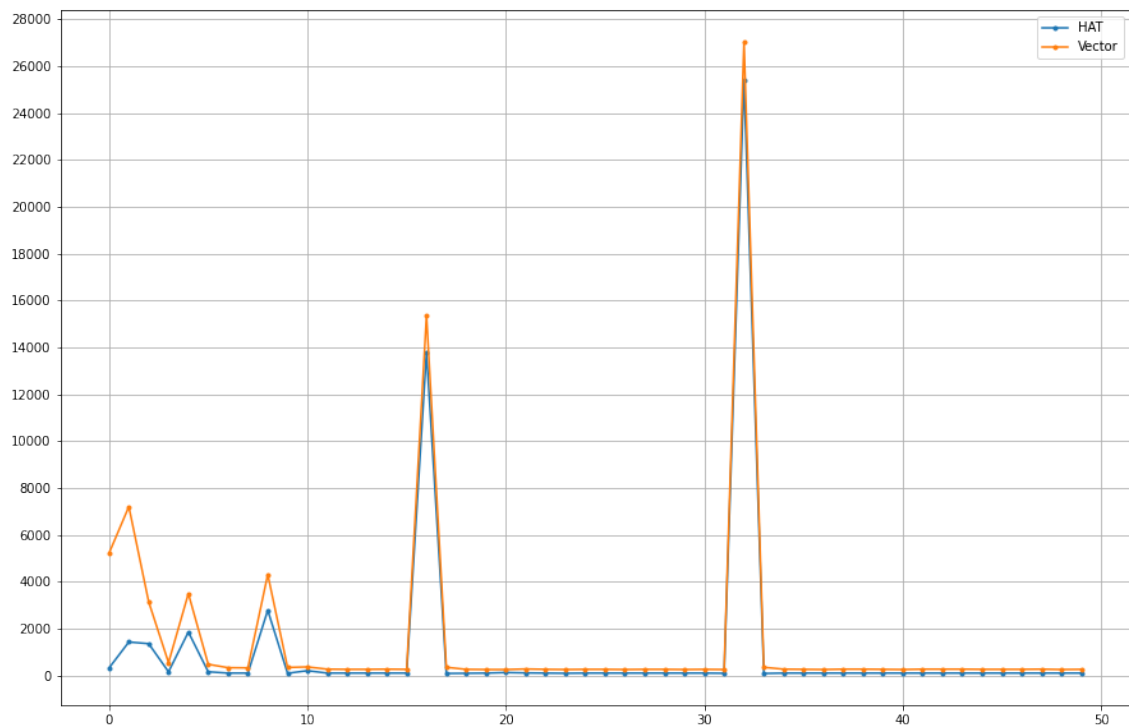
## 1: *Resizable Arrays*

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### (a) Append Latency

HAT  $\approx 96$  cycles

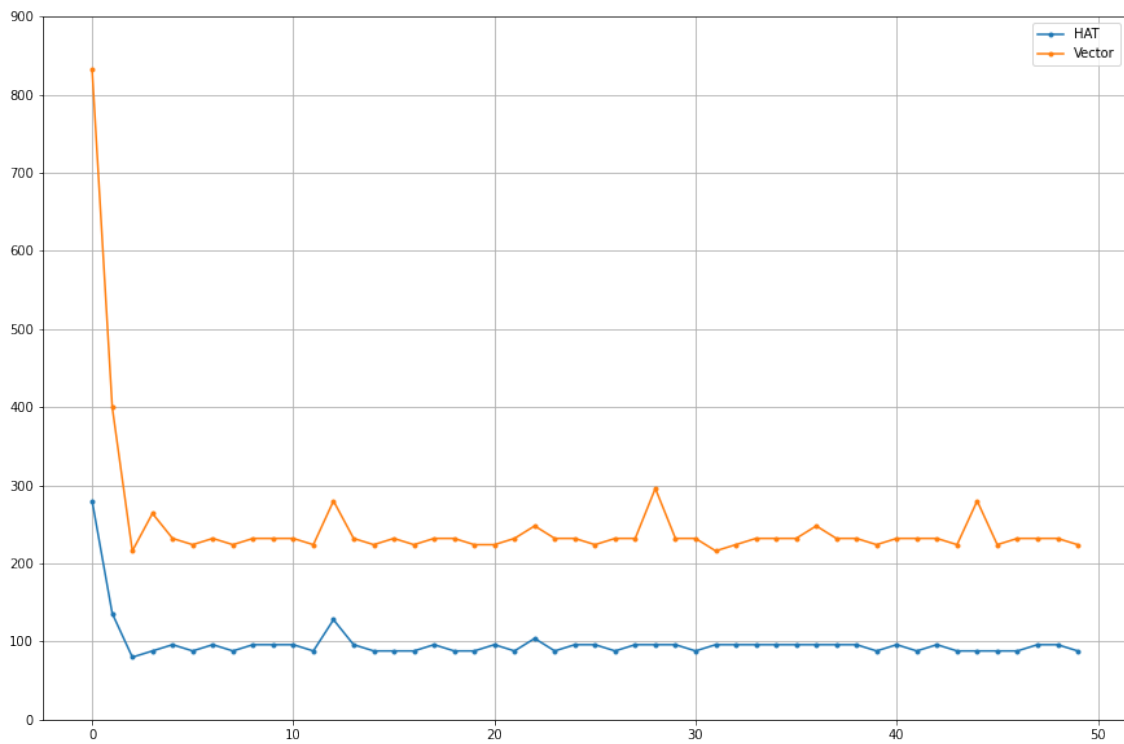
Vector  $\approx 260$  cycles



### (b) Access Latency

HAT  $\approx 96$  cycles

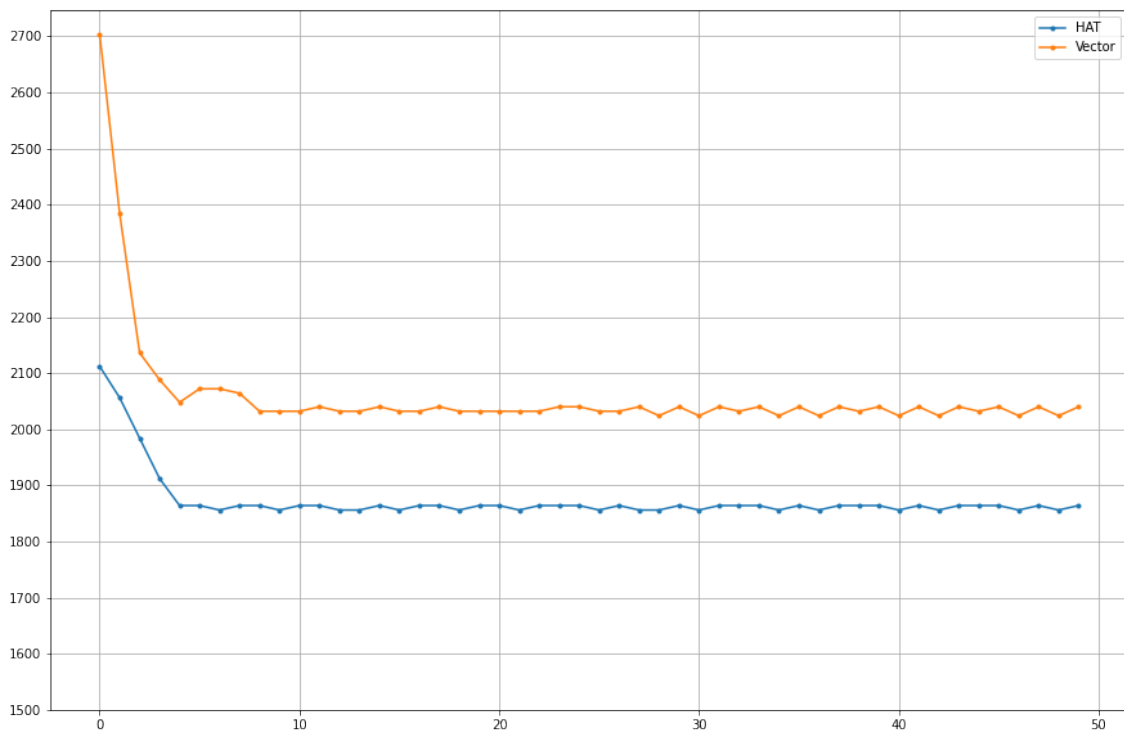
Vector  $\approx 232$  cycles



(c) Scan Latency

HAT  $\approx 1864$  cycles

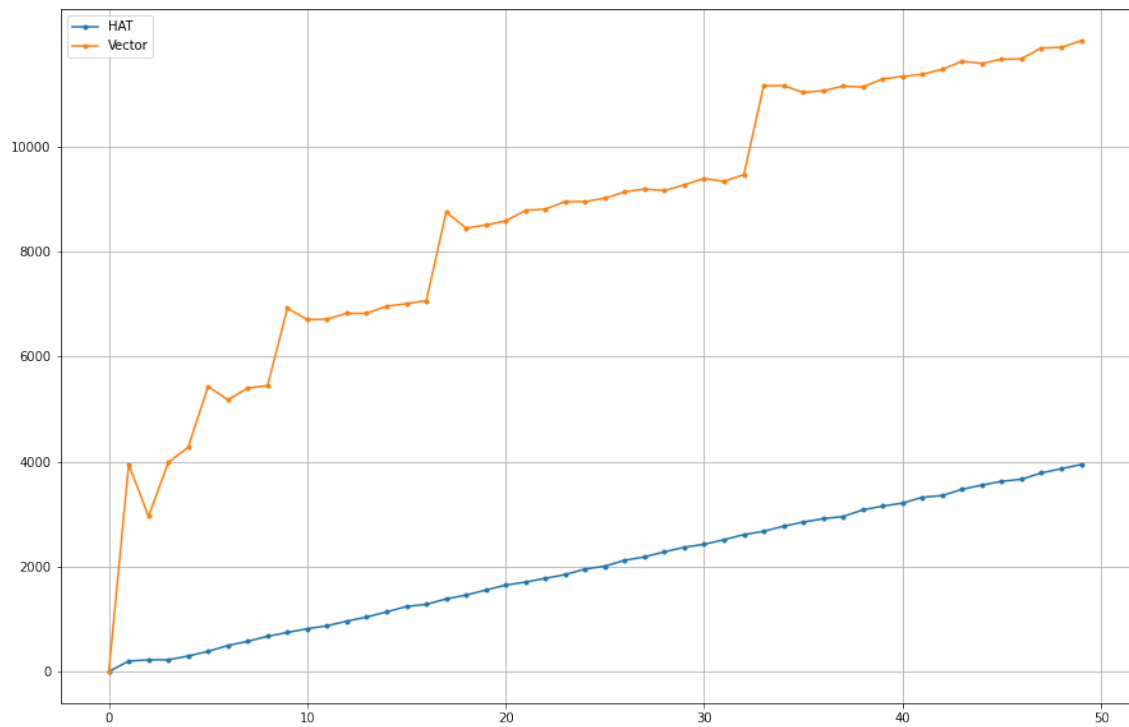
Vector  $\approx 2036$  cycles



(d) Overall Latency

HAT  $\approx 1980$  cycles

Vector  $\approx 8984$  cycles



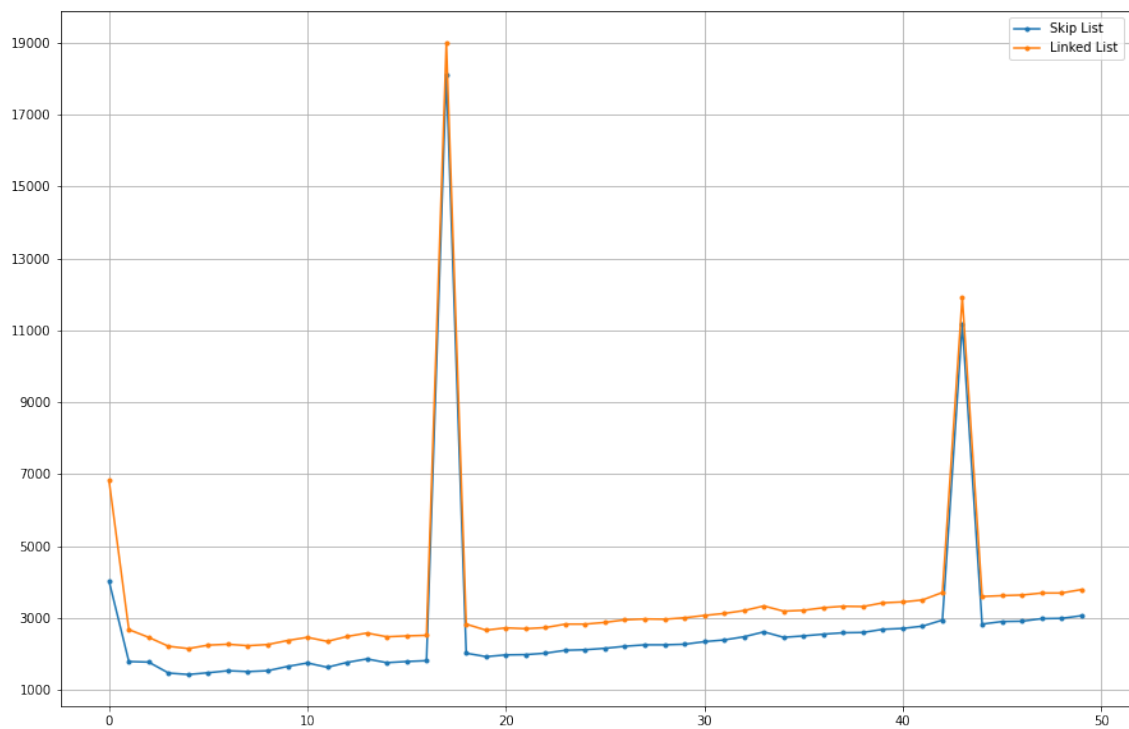
### 3: Skip Lists

(a)

Insert Latency

Skip List  $\approx 2236$  cycles

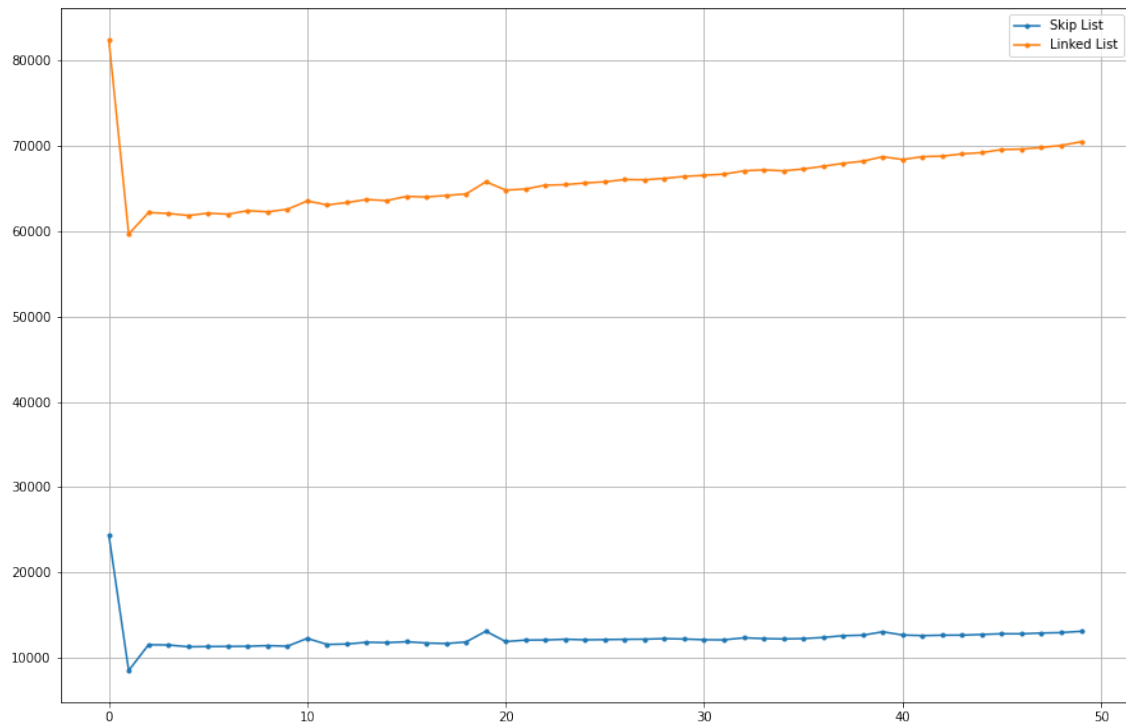
Linked List  $\approx 2960$  cycles



Search Latency

Skip List  $\approx 12212$  cycles

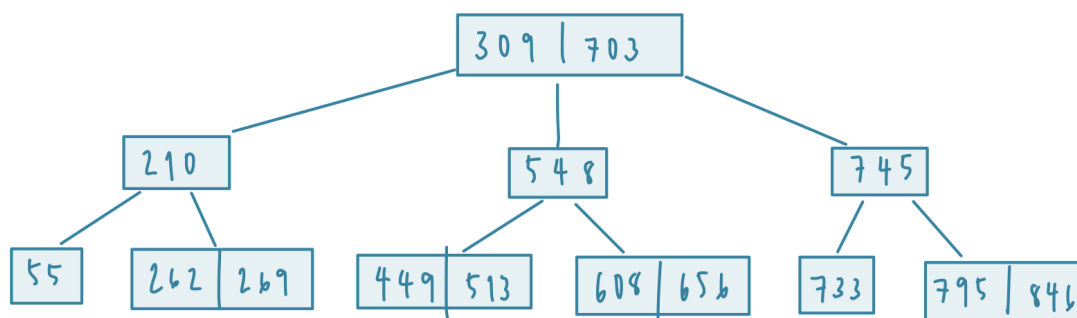
Linked List  $\approx 65856$  cycles



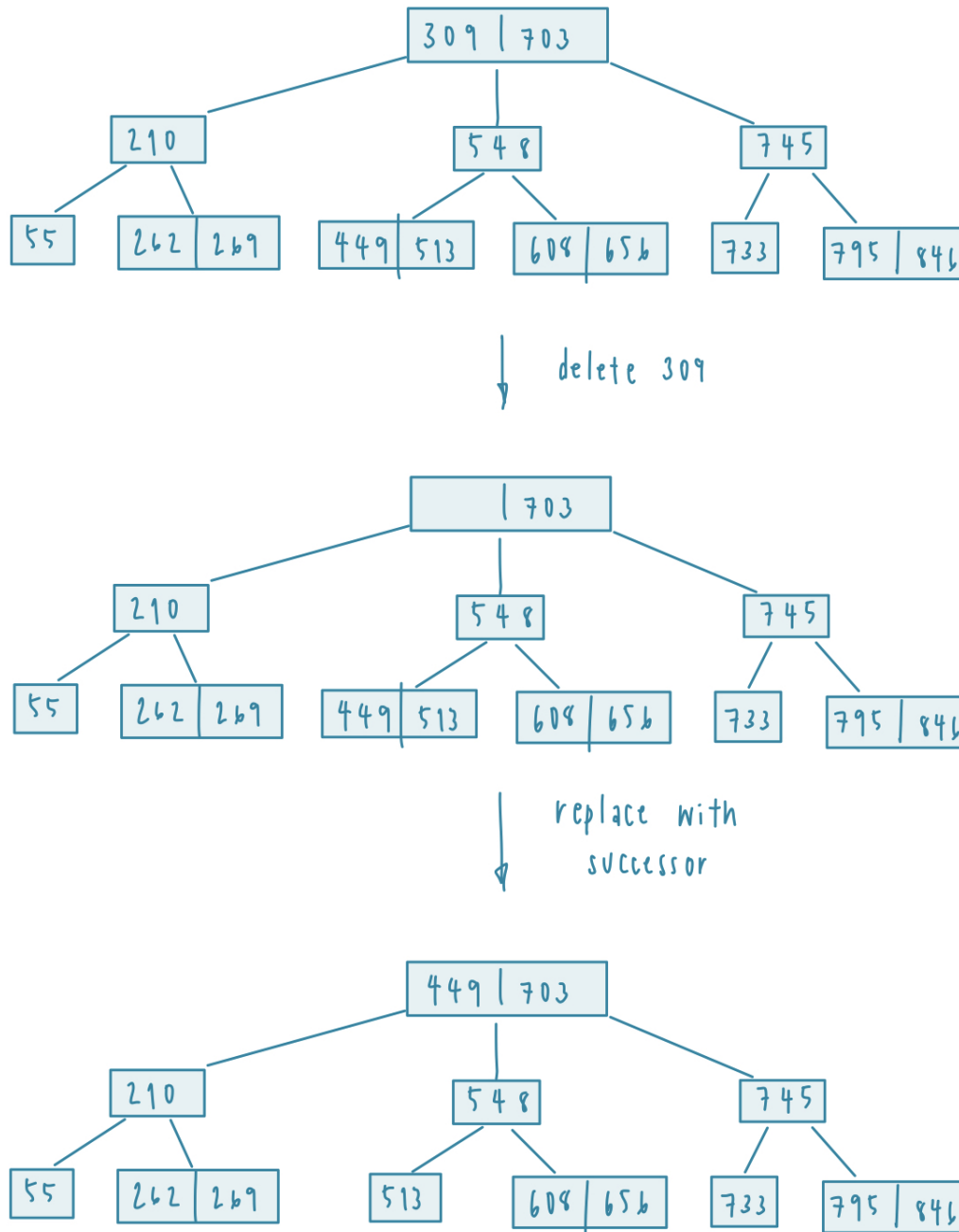
(b)

4: (a, b) tree

(a)



(b)



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#### 4: B-Tree Speed

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