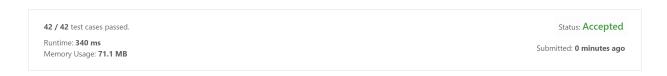
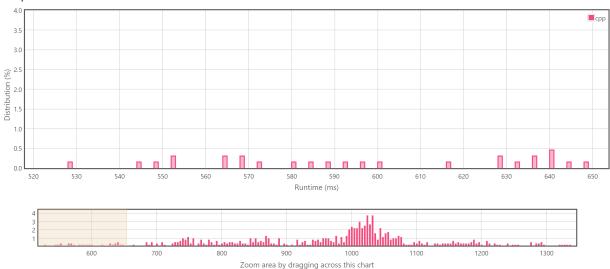
- 1. Greedy, heap. $O(n \operatorname{sort}(n))$.
- 2. Sorting according to the right endpoint in increasing order, then for each interval, greedily place at the leftmost possible position. Two endpoints with distance at least n cannot affect each other, so we can wlog assume $U = O(n^2)$, and thus sorting takes O(n) time. Union find can be implemented in O(n) time in this case (deletion only, using bit packing) [1]. O(n).



Accepted Solutions Runtime Distribution



Runtime: 340 ms, faster than 100.00% of C++ online submissions for Maximum Number of Events That Can Be Attended.

Memory Usage: $71.1\,$ MB, less than 83.84% of C++ online submissions for Maximum Number of Events That Can Be Attended.

References

[1] Harold N Gabow and Robert Endre Tarjan. A linear-time algorithm for a special case of disjoint set union. *Journal of computer and system sciences*, 30(2):209–221, 1985.