assume $k = O(1)$, and we want to find all elements with frequency $> \frac{n}{k}$. use Misra-Gries Algorithm in the streaming model [2] (for the special case that $k = 2$, see BoyerCMoore majority vote algorithm [1]). $O(n)$ time, $O(1)$ space. need 2 passes, in the first pass we can find $O(k)$ elements which is a superset of all solutions, and in the second pass we verify them.

https://en.wikipedia.org/wiki/Misra%E2%80%93Gries_summary
https://en.wikipedia.org/wiki/Boyer%E2%80%93Moore_majority_vote_algorithm

References

[1] Robert S Boyer and J Strother Moore. Mjrtya fast majority vote algorithm. In *Automated Reasoning*, pages 105–117. Springer, 1991.

[2] Jayadev Misra and David Gries. Finding repeated elements. *Science of computer programming*, 2(2):143–152, 1982.