
Your Ultimate Guide To Landing
Top AI roles
DECODE
AiML

P-3

Q. Input : array = [2, 1, 1, -1, -1, 0, 0, -1, 0]

Output : return all triplets

Constraints

3 <= array.size <= 3000

Bruteforce

array = [2, 1, 1, -1, -1, 0, 0, -1, 0]

$T(n) = O(n^3)$

Space = $O(n^3)$ ⇐ ↵

↵ Set ↵ n^3 Triplets

Sub optimal

3 loop
- L1 → a
- L2 → b
- L3 → c

$O(n^2)$

array = [2, 1, 1, -1, -1, 0, 0, -1, 0]

$O(n \log n)$ | sort

[-1, -1, -1, 0, 0, 0, 1, 1, 2]

a

Brute force

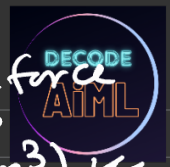
$O(n^3)$

$a + b + c = 0$

$b + c = -a$

$O(n)$ ← 2sum

b + c = Target



Optimal

array = [2, 1, 1, -1, -1, 0, 0, -1, 0]

[-1, -1, -1, 0, 0, 0, 1, 1, 2]

a →
b →
c →

a+b+c=0

better

b+c=-a

⇓

2-Pointers

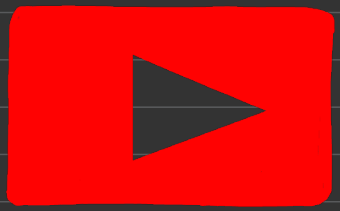
⇓

Set()

without ⇓

$O(n^2)$ ✓

extra space ✗

Like  Subscribe