class Solution:

def myAtoi(self, s: str) -> int:

INT\_MAX, INT\_MIN = 2\*\*31 - 1, -2\*\*31

i, n = 0, len(s)

# Step 1: Skip leading whitespace

while i < n and s[i] == ' ':

i += 1

# Step 2: Check for optional sign

sign = 1

if i < n and s[i] == '-':

sign = -1

i += 1

elif i < n and s[i] == '+':

i += 1

# Step 3: Convert digits to integer

result = 0

while i < n and s[i].isdigit():

digit = int(s[i])

# Check for overflow

if result > (INT\_MAX - digit) // 10:

return INT\_MAX if sign == 1 else INT\_MIN

result = result \* 10 + digit

i += 1

return sign \* result