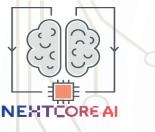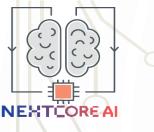# Introduction

Merge Sort (Overview)

Design and Analysis of Algorithms I

WHY STUDY MERGE SORT?

- Good introduction to divide & conquer
  - Improves over Selection, insertion, Bubble sorts
- Calibrate your preparation
- Motivates guiding principles for algorithm analysis (worstcase and asymptotic analysis)
- Analysis generalizes to "Master Method"

The Sorting Problem

Input : array of n numbers, unsorted.

Assume Distinct

Output : Same numbers, sorted in increasing order

Nextcore AI -
Gopal
Shangari

MERGE SORT: EXAMPLE

Recursive calls

merge