



INTRODUCTION TO ALGORITHMS CAMP

EnCORE is pleased to announce a summer camp for community college students and those attending minority-serving institutions. This camp aims to provide a concise overview of the algorithmic knowledge students are expected to learn at the University of California, and more broadly, in a standard four-year college curriculum. This knowledge is key to a successful academic journey at four-year colleges.

COURSE TOPICS:

- Camp Introduction: **Motivations and high-level applications**, asymptotic world, real-world computers vs abstract computers, random-access-machine, and warm-up programming assignments to familiarize students with the common programming platform.
- Two major methods to solve problems: **iterations and recurrences** (divide-and-conquer). Insertion Sort and Quick Sort and their implementation.
- Randomization: **Randomized Quick Sort**, measuring run time, hashing and its applications.
- Dynamic programming: **DNA sequencing analysis and Longest Common Subsequence**.
- Introduction to **NP-hardness** with a glimpse of Turing machine and undecidability.



AUG 12 – AUG 16 , 2024 (MON-FRI)

Hybrid format at the EnCORE Institute at UC San Diego

HOW TO APPLY:

Visit: EnIAC: EnCORE Introduction to Algorithms Camp

or Scan the QR code:

