



5 Courses

**Algorithms for Searching,  
Sorting, and Indexing**

**Trees and Graphs: Basics**

**Dynamic Programming,  
Greedy Algorithms**

**Approximation Algorithms  
and Linear Programming**

**Advanced Data Structures,  
RSA and Quantum  
Algorithms**



University  
of Colorado  
Boulder

Jun 20, 2025

**Sagnik Dutta**

has successfully completed the online Specialization

# Foundations of Data Structures and Algorithms

Building fast and highly performant data science applications requires an intimate knowledge of how data can be organized in a computer and how to efficiently perform operations such as sorting, searching, and indexing. This specialization guides learners through the fundamentals of data structures and algorithms with a focus on data science applications. It is targeted towards learners who are broadly interested in programming applications that process large amounts of data (expertise in data science is not required), and are familiar with the basics of programming in python.

Sriram  
Sankaranarayanan, PhD  
Professor of Computer  
Science  
University of Colorado  
Boulder

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