

# SOS Midterm Report

Amol kare

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## 1 Introduction

Data structures and algorithms (DSA) form the backbone of computer science, providing the foundational tools for efficiently organizing, managing, and processing data. These concepts are crucial not only in theoretical computer science but also in practical applications ranging from database management systems to machine learning and beyond. Over the years, significant advancements have been made in the development of efficient data structures and algorithms, which have substantially improved the performance of computer systems and applications.

## 2 contents

1. Basics Of DSA
2. Sorting
3. Arrays
4. Binary Search
5. Strings
6. Linked List
7. Bit Manipulation