PROBLEM SOLVING

SKILLS

By Ahmed Yasser Taha

AHMED YASSER TAHA

- Core-team Problem Solving @GDSC

- Student @SC department @BFCAI

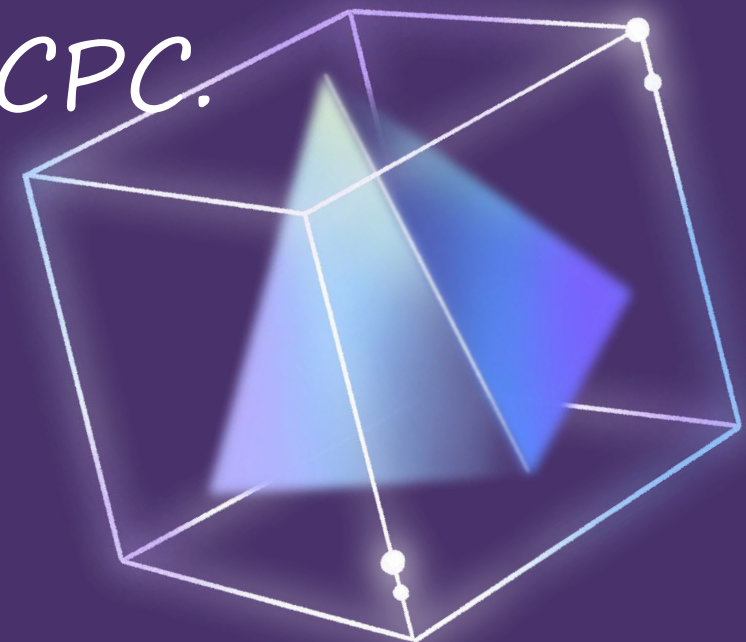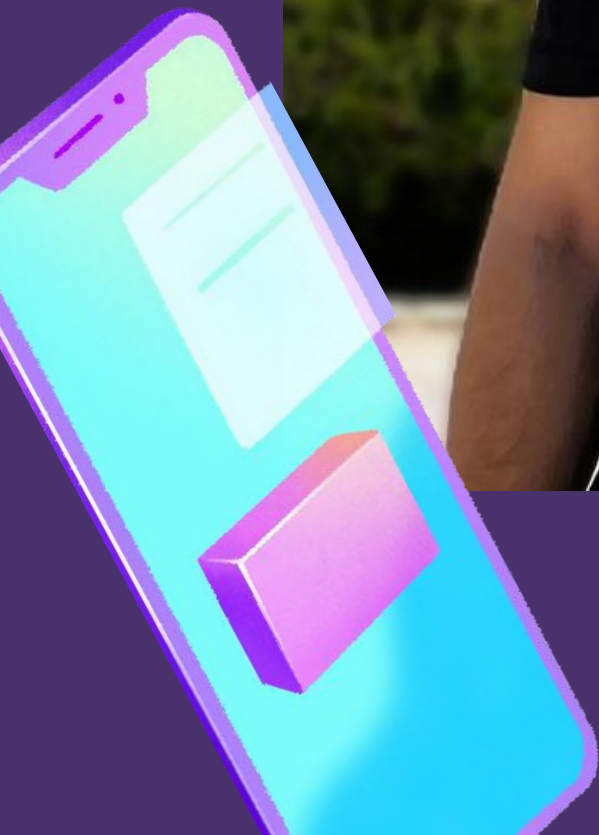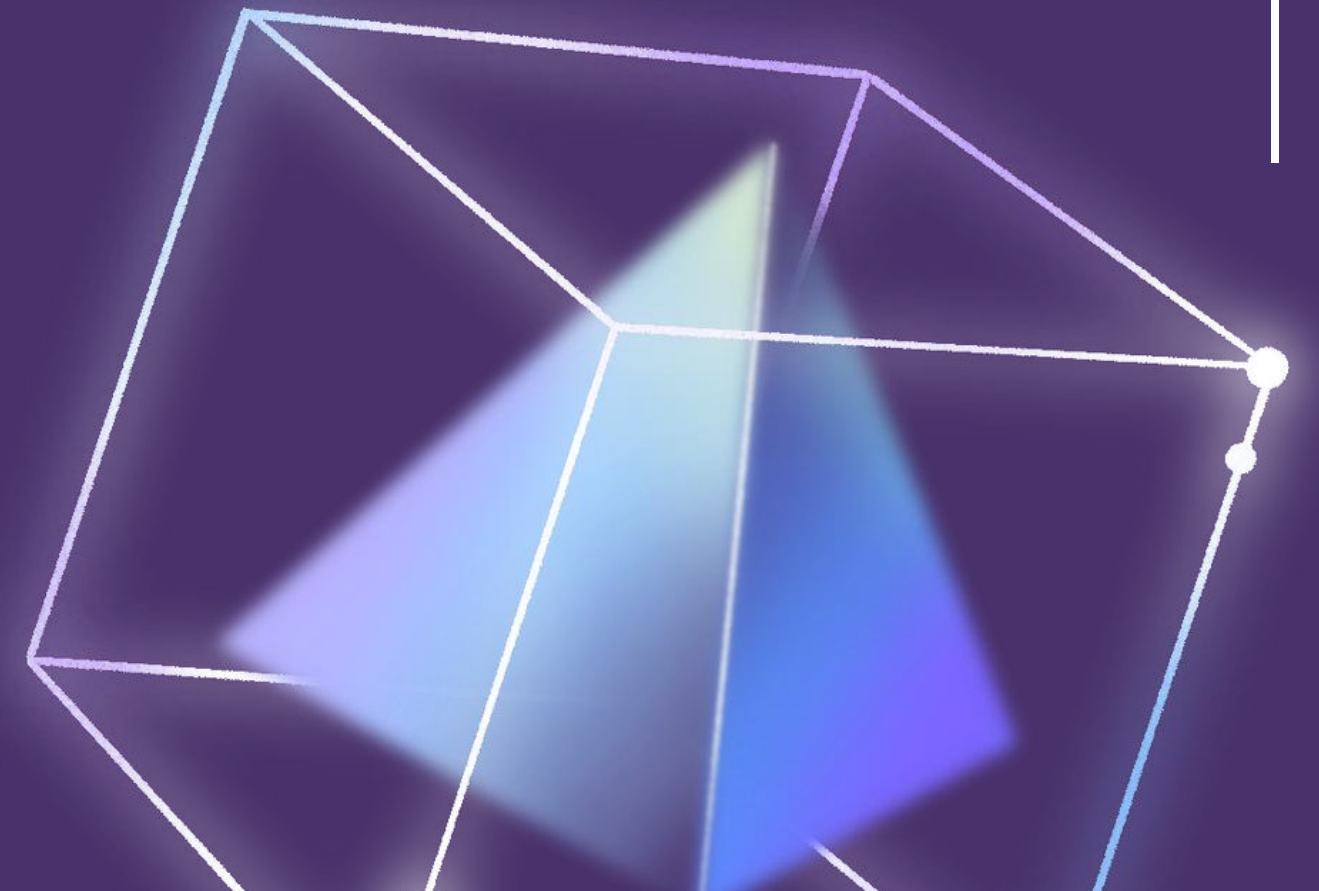- Competitve programmer @Codeforces
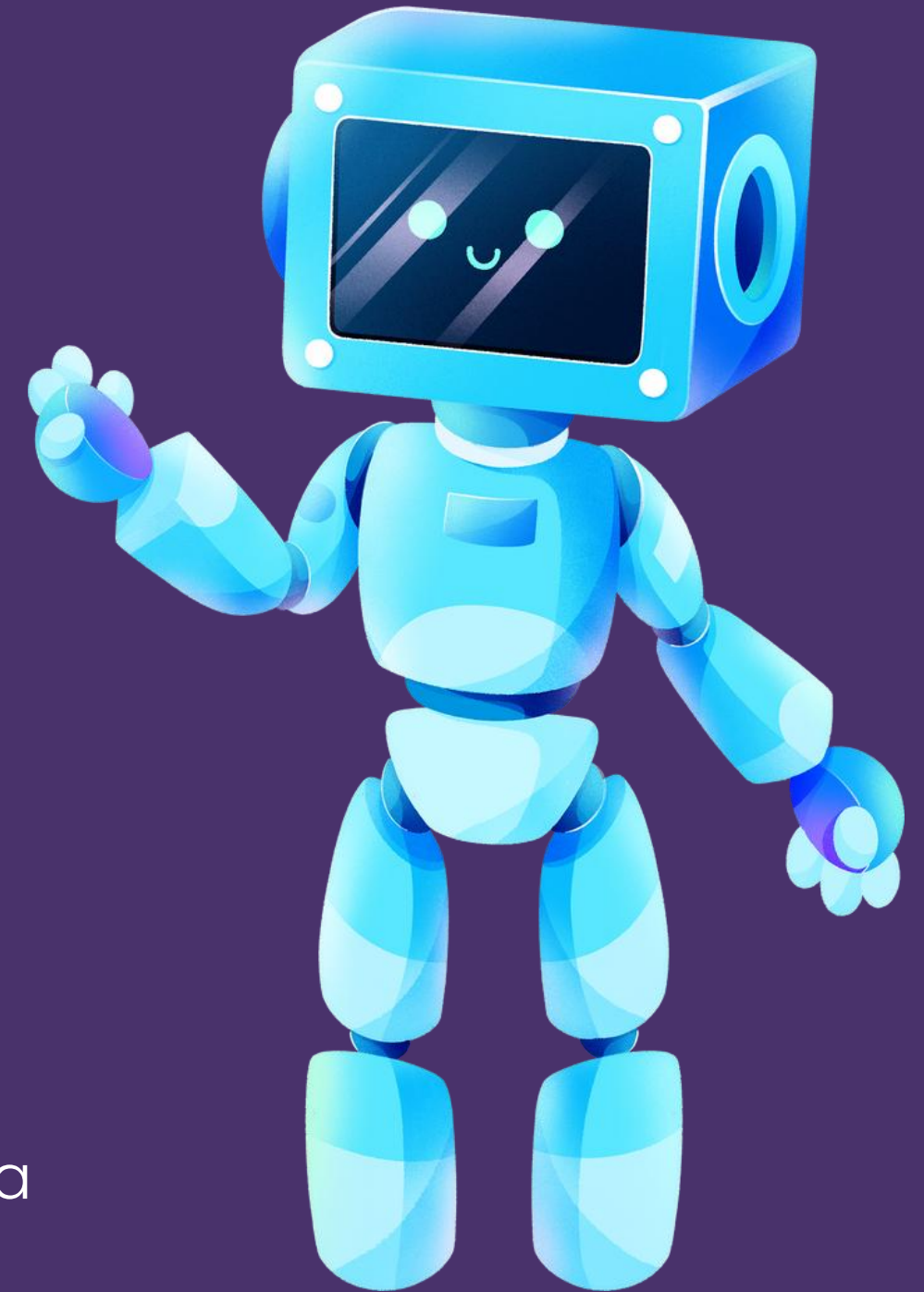 and LeetCode.

- Participated in ECPC.
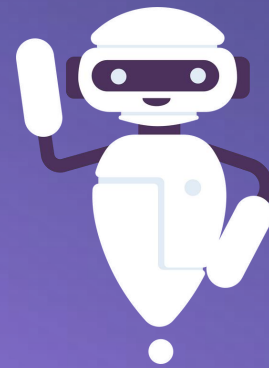
TABLE OF CONTENTS

INTRODUCTION

Problem-solving is a process that involves analyzing a situation, identifying challenges, and implementing effective strategies to reach a desired outcome.

IN Programming

problem-solving refers to the approach of using algorithms and data structures to find effective solutions to the problem.
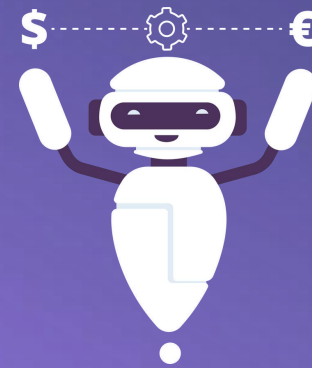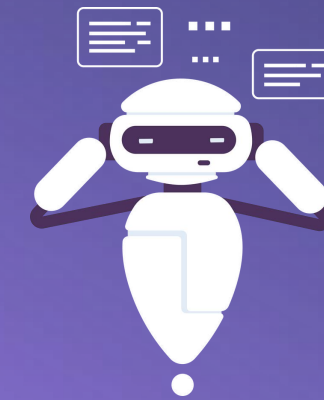
KEY ASPECTS

UNDERSTANDING THE PROBLEM

You must have a clear understanding of the problem.
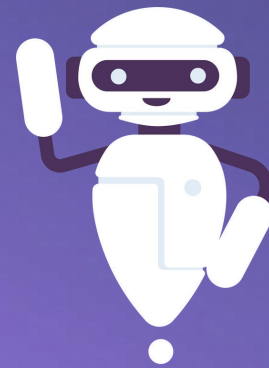
DECOMPOSITION

Break down the problem into smaller sub-problems to make it easier to solve it.
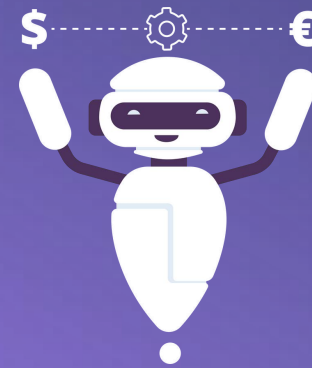
ALGORITHM DESIGN

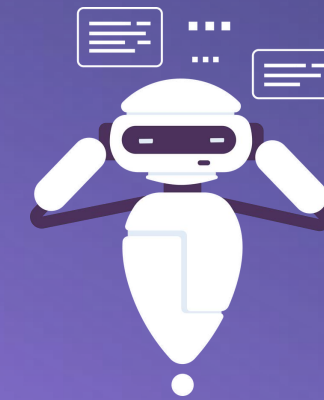Design the appropriate algorithm for each sub-problem.

KEY ASPECTS

DATA STRUCTURES

Choose an appropriate data structure to efficiently store the data involved in the problem.
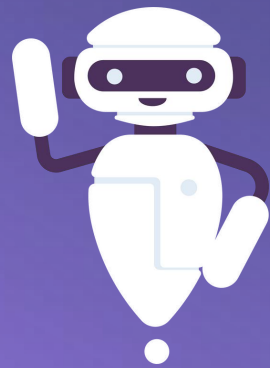
CODING

Implement the solution in your coding language.

TESTING

Test your code with several test cases including edge and worst test cases.

KEY ASPECTS

DEBUGGING

Identify and fix the errors in your code.

OPTIMIZATION

Calculate the time and space complexity of the solution and try to optimize it if necessary.

IN INTERVIEWS

- Many companies depend on problem-solving interviews, for example. Meta, Microsoft, Amazon, Valu, and Vodafone.

- if you have problem-solving skills that does not mean you are the greatest programmer or computer engineer, but it helps more.

01

02

CONTACT ME

Ahmed Yasser Taha

AhmedYasserTaha

CodeForces **AhmedYasser_77**

THANK YOU!