

# Showmick Kar

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GitHub: ShowmickKar

## EDUCATION

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- **B.Sc. in Computer Science and Engineering**  
Brac University GPA: 3.91  
*July 2020 - January 2023*

## EXPERIENCE

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- **BRACU Mongol-Tori**  
Junior of Software and Autonomous  
Worked on a group of 3 people and Created a Graphical User Interface in Python using Tkinter which collected environmental data from an arduino sensor and plotted their graph in real time using Matplotlib  
*February 2021 - Present*
- **Brac University Computer Club**  
General Member - Press Release and Publication  
Wrote up and edited 10+ press releases covering various events and seminars at university  
*July 2020 - Present*

## TECHNICAL SKILLS

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- **Tools & Technologies**  
Pygame, GitHub, Version Control, Linux, LaTeX
- **Programming Languages**  
Python, C/C++, Java
- **Computer Science Concepts**  
Object-Oriented Programming, Data Structures, Algorithm Design and Analysis

## PERSONAL PROJECTS

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- **Sorting Visualizer:** [GitHub link]  
Implemented famous sorting algorithms such as Bubble Sort, Selection Sort, Insertion Sort and Merge Sort in Python and visualized their workflow using Pygame
- **Pathfinding Visualizer** [GitHub link]  
Implemented Dijkstra's and A\* Search Algorithm in Python to find the shortest route between two cells in a grid and visualized their workflow using Pygame
- **Sudoku Solver** [GitHub Link]  
Implemented a Backtracking Algorithm in Java that finds the solution to a valid Sudoku Board
- **Tic-Tac-Toe AI** [GitHub link]  
Created a Tic-Tac-Toe game in Python and implemented a decision-based search algorithm called MINIMAX to make it unbeatable
- **Mini Games**  
Created small games such as Flappy Bird, Snake Game, Hangman, 2-player Space Shooting Game in Python and Pygame
- **Leetcode Solutions** [GitHub link]  
Posted solutions to 100+ Leetcode problems encompassing fundamental data structures and algorithms such as Hash maps, Binary Trees, Graphs, Dynamic Programming and so on