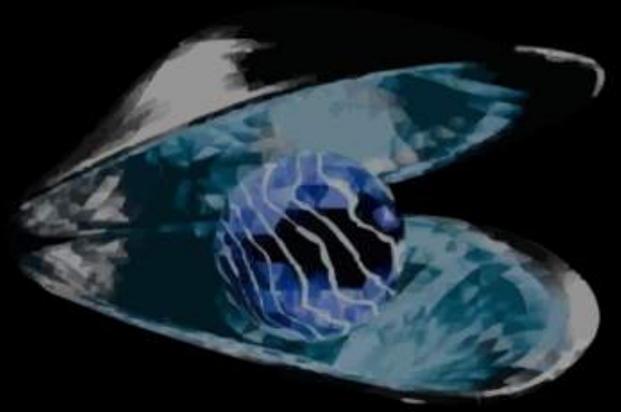

Openverse
Algorithima
IN
This is a Opensource project to visualize and teach the subject of DSA , initially developed for IIITK , Open for the World!!

Our Mission

Every feature we build serves a clear educational purpose, helping users understand complex concepts through intuitive interactions.

Delivering high-quality interactive experiences that combine beautiful design with powerful functionality for optimal learning outcomes



The Problem

ALGORITHM LEARNING IS TOO THEORETICAL.

Quote

With lakhs of students learning DSA each year, but over 70% struggling with abstraction and memory models, the importance of visual, intuitive tools has never been greater.

Opportunity

45M+

45 million+ students enrolled for CS courses globally

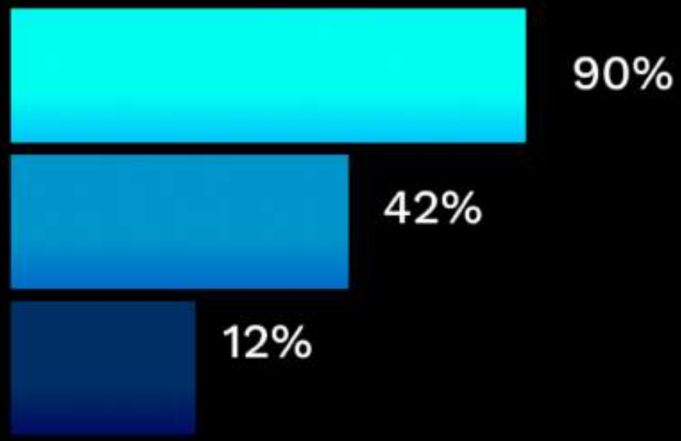
80%

80% of technical interviews prioritize DSA over frameworks, making foundational understanding critical for placements and internships.

90% of learners benefit from visual explanations, 42% seek topic-wise practice with real-world problems, and 12% rely on static, text-based methods alone.

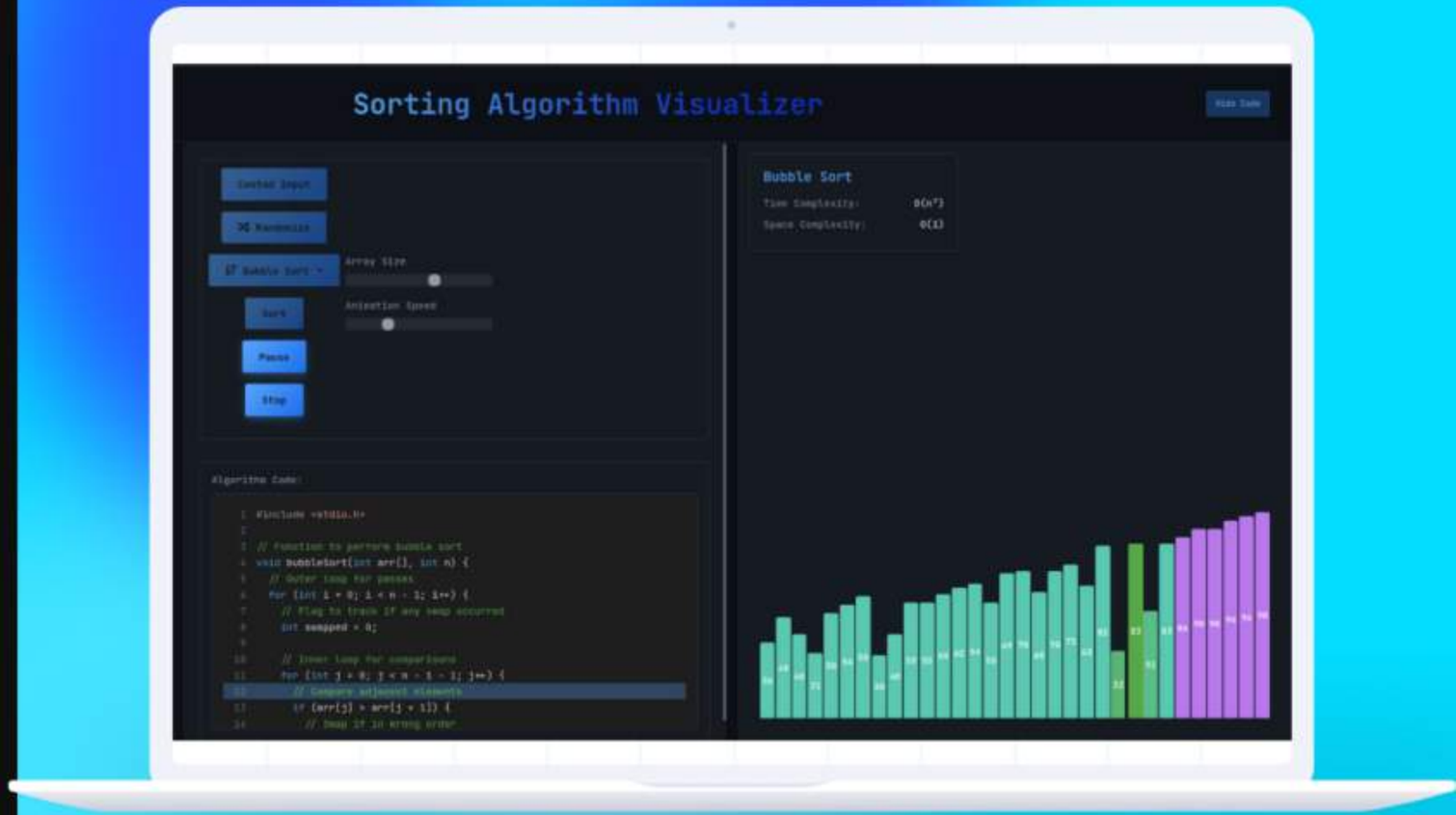
this tool covers all of the above

User Insight



Solution

Algorithima



DSA Visualizer is an open-source, web-based platform developed at IIIT Kottayam under the Openverse club. It is designed to help students understand data structures and algorithms through real-time visualizations, memory simulation, and interactive C code execution. Every module is carefully tailored to mirror academic expectations while enhancing conceptual clarity.

The platform features visualizers for linked lists, trees, stacks, queues, sorting, recursion, graphs, hash tables, and pathfinding. It includes topic-wise quizzes, previous year questions from IIITK, and a sorted LeetCode problem bank. All components are synced with executable C code, memory tracking, and interactive controls.

We're expanding the platform to include Tries, AVL trees, segment trees, and advanced graph algorithms. We're also building a full-fledged practice zone with progress tracking, gamified checkpoints, and performance analytics. Long-term, we aim to make this a comprehensive, open-source DSA learning suite used by colleges everywhere.

DSA VISUALIZER

Product

New Feature 1

Custom input and
highlighting the code
which is being executed

New Feature 2

tests and practice
questions with PYQ's and
leetcode support

Underlying Magic ✨

Built using the latest React with hooks and functional components for a clean, modular UI.

React 19

Lightning-fast build tool powering instant updates, modern JavaScript support, and optimized production builds.

Vite 6

The entire website is self hosted on IIITK architecture

Hosted at IIITK (soon)

Smooth and dynamic animations drive each step of algorithm visualizations for an engaging experience.

Framer Motion

Synchronized code highlighting to show which line of C code is being executed at each algorithm step.

React Syntax Highlighter

Meet the Team

Dr. Manu Madhavan

Project Guide

These new technologies have the potential to revolution

Manvith Kumar

Clud Lead , Dev

Helping everyone, because I had a hard time with DSA

Prajwal Kumar

Project Lead, Dev

I love algorithms, and helping everyone else love them too

Shuan Sebastian

Core member, Dev

I find bugs here, To Make sure you wont find any

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CONTACT