

RANAJIT DAS

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KOLKATA, INDIA

Education

HOOGHLY ENGINEERING AND TECHNOLOGY COLLEGE (HETC), India | 2021 - Expected Graduation: 2025

- B. Tech in Computer Science and Engineering | CGPA: **8.56** (Up to 6th semester)

SARSUNA BOYS HIGH SCHOOL (SHS), India

- WBBSE (Class X) Aggregate: 80% | 2019
- WBHSE (Class XII) Aggregate: 81% | 2021

Skills

Languages: Java, C, JavaScript, HTML5, CSS3, Python, TypeScript
Databases: MongoDB, SQL
Frameworks/Libraries: React JS, Tailwind CSS, Next JS, Node JS, Express JS
Platforms: Windows, Linux
Version Control: Git, GitHub

Projects

1. SNIP-X: A CODE SNIPPET SHARING PLATFORM | [🔗](#)

- **Full-stack CRUD application** that allows users to create, edit, and copy code snippets. Efficient categorization with tags.
- **Google authentication enables secure sign-in/sign-out**, allowing users to **manage their own profile and view other users' profiles**, exploring their shared snippets.
- Advanced search functionality lets users **efficiently search for specific users or tags, with clickable tags** providing instant filtering of related posts.
- Developed an interactive, **randomized feed that displays an average of 20 user posts**, refreshing on each page load to maintain engaging and updated content.
- **TECH STACK** – React, Next JS, Mongo DB, Tailwind CSS

2. TEXT COMPRESSOR USING HUFFMAN CODING | [Demo](#)

- **Reduced data size by up to 50% or more** using Huffman coding, optimizing encoding with **min-heaps** and **hash maps** to minimize bit usage.
- Enhanced performance and memory efficiency with **object-oriented principles** in Java, achieving compression **below the standard 16-bit character representation**.
- **TECH STACK** – Java, Java GUI

3. REAL-TIME TIC TAC TOE GAME | [🔗](#)

- Developed a **real-time multiplayer Tic Tac Toe game with integrated chat functionality**.
- Implemented **WebSocket communication using Socket.IO** for seamless online gameplay.
- **Added offline mode** for local two-player games on the same device.
- **TECH STACK** – React JS, Node JS, Socket.IO

4. PRACTICE PROJECTS – SORTING VISUALIZER ALGORITHM [🔗](#) | TIC-TAC-TOE [🔗](#) | STONE-PAPER-SCISSORS [🔗](#) | CLOUDCAST-WEATHER APP | PORTFOLIO-WEBSITE [🔗](#)

Academic and Extracurricular Achievements

- Certified in Data Structures and Algorithms through completion of three Stanford University Coursera courses.
- Led a group project in my third year to build a Java-based file compressor and decompressor application and math expression recognizer and solver using machine learning.
- Solved over 140 problems on LeetCode.