

RANAJIT DAS

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KOLKATA, INDIA

PROFILE SUMMARY

Full-stack developer proficient in Java, JavaScript, React, Node.js, and MongoDB. Focused on building scalable web applications through practical project experience.

EDUCATION

HOOGLY ENGINEERING AND TECHNOLOGY COLLEGE (HETC), India | September 2021 – July 2025

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

PROJECTS

1. SNIP-X: A CODE SNIPPET SHARING PLATFORM |





- **TECHNOLOGY STACK** – React.js, Next.js, MongoDB, Tailwind CSS
- **Full-stack CRUD application** for creating, editing, and copying code snippets, with efficient categorization through one or more tags.
- Integrated **Google authentication for secure sign-in/sign-out**, allowing approximately 50-100 users to create and manage profiles, and explore shared snippets.
- Implemented an advanced search feature, enabling users to **search for specific users or tags, with clickable tags filtering related posts** from over 100+ snippets.
- Engineered an interactive, **randomized feed that displays an average of 20 user posts**, refreshing on each page load to maintain engaging and updated content.

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

- **TECHNOLOGY STACK** – Java, Java GUI
- **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**.

3. REAL-TIME TIC TAC TOE GAME WITH INTEGRATED CHAT FEATURE |

- **TECHNOLOGY STACK** – React.js, Node.js, Express.js, Socket.IO
- Developed a real-time **multiplayer Tic Tac Toe game with integrated chat functionality** for 2 players.
- Implemented **WebSocket communication using Socket.IO** for seamless online gameplay.
- **Added offline mode** for local 2-player games on the same device.

4. PRACTICE PROJECTS – SORTING VISUALIZER ALGORITHM  | TIC-TAC-TOE  | STONE-PAPER-SCISSORS  | CLOUDCAST-WEATHER APP | PORTFOLIO-WEBSITE 

SKILLS

Programming Languages: Java, C, JavaScript, Python, TypeScript

Frontend Technologies: HTML5, CSS3, React.js, Next.js, Tailwind CSS

Backend Technologies: Node.js, Express.js

Databases: MongoDB, SQL

Version Control: Git, GitHub

Languages (Spoken): Bengali (Native), English (Proficient), Hindi (Conversational)

ACADEMIC AND EXTRACURRICULAR ACHIEVEMENTS

- Completed three Data Structures and Algorithms courses offered by Stanford University on Coursera, earning certification.
- Led a group project in my third year to build a Java-based file compressor/decompressor application and math expression recognizer and solver using machine learning.
- Solved over 150 leet code problems, enhancing coding and algorithmic skills.