

Soumya Chakraborty

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1 EDUCATION

Army Public School

Apr 2010 - Apr 2020

CBSE class 10

Bholananda National Vidyalaya

Apr 2020 - Apr 2022

CBSE class 12 (Science Stream)

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY

Aug 2022 - Present

RCC Institute of Information Technology

- Bachelor of Technology in Information Technology

2 ACADEMIC PROJECTS

Dataframes using C language Jan 2023

Description: Developed a C program to mimic core DataFrame functionalities found in Python's Pandas library. Implemented a custom DataFrame structure, data insertion, printing, summary statistics calculation, and basic aggregation operations.

Key Skills:

- C programming
- Data structures
- Algorithm design

Potential Enhancements (shows ambition):

- Expand operations to mirror a broader range of Pandas functions.
- Optimize performance for larger datasets.

GST Calculator Jan 2023

Key Skills:

- Python programming (OOP, exception handling, file I/O)
- GUI development (Tkinter)
- Understanding of the Indian GST system

Potential Enhancements:

- Expand calculation capabilities to cover more complex GST scenarios
- Improve the user interface for greater intuitiveness

AVL Tree Visualizer June 2023

- Developed an interactive visualization tool for AVL (Adelson-Velsky and Landis) trees using JavaScript.
- Implemented dynamic rendering of tree structures with smooth animations for better understanding.
- Utilized HTML and CSS for the front-end, and JavaScript with D3 library for creating dynamic SVG elements.
- Improved proficiency in JavaScript and gained insights into tree data structures and balancing algorithms.

Karnaugh Map Solver Aug 2023

Key Skills:

- JavaScript programming (modern features)
- Web development (interactive interface, dynamic visualization)
- Digital logic design (Karnaugh Map understanding)
- Problem-solving

Potential Enhancements:

- Support for larger or more complex Karnaugh Maps
- Implement additional circuit simplification algorithms
- Enhance user experience with guided input or tutorials

IEEE 754 32-bit Code Converter Sept 2023

- Developed a JavaScript-based tool for converting IEEE 754 32-bit floating-point codes.
- Implemented a user-friendly graphical interface to facilitate easy input and interpretation of floating-point codes.
- Applied JavaScript programming techniques, including efficient data handling and manipulation, to ensure accurate conversions.
- Gained insights into the IEEE 754 standard and honed JavaScript skills in handling binary representation and conversion algorithms.

Unsupervised Video Summarization with Deep Reinforcement Learning Nov 2023 - Till date

- Contributed to a project focused on unsupervised video summarization using deep Generative Adversarial Network (GAN) reinforcement learning.
- Implemented and enhanced algorithms to generate concise and informative video summaries through GAN-based approaches.
- Applied reinforcement learning techniques to improve the summarization process, ensuring more relevant and coherent results.
- Gained hands-on experience with deep learning, GANs, and reinforcement learning in the context of video analysis and summarization.

3 ACHIEVEMENTS

HackerRank

Apr 2023 - present

- 5 star coder at HackerRank in Python
- Python certified by HackerRank
- Java certified by HackerRank
- 4 star coder at HackerRank in C language

React Developer

Sept 2023 - present

Created multiple college websites using React.js

Python developer

June 2023 - present

- Created multiple AI models using Python

4 EXTRA-CURRICULAR ACTIVITIES / LEADERSHIP ROLES

Google Developer Student Club

Dec/2023

Member since 2022

- Worked on various react projects with them.
- Attended several seminars.

5 ADDITIONAL

- Technical Skills: **C, Java, JavaScript, Python(pandas, numpy, keras)**
- Language Skills: **English** (Business Professional), **Bengali** (Native), **Hindi** (Native)
- Volunteer work: Worked in National Service Scheme (since 2022)