

Soumyadeep Banerjee

Kolkata

Email: soumyadeepbanerjee410@gmail.com | Ph: +91-9330531628

LinkedIn: [soumyadeepb2001](#) | GitHub: [SoumyadeepB2001](#)

Personal Website: soumyadeepb2001.github.io

Education

Master of Computer Applications (MCA)

University of Kalyani | Score: 8.56 CGPA or 81.04% | July 2025

Bachelor of Science (Honours) in Computer Science

West Bengal State University | Score: 9.69 CGPA or 85.35% | Aug 2023

ISC Class 12th (Science)

Score: 82.75% | Aug 2020

ICSE Class 10th

Score: 90.2% | May 2018

Skills

Java, C#, SQL (MS SQL Server, MySQL), HTML, ASP.NET 4.8, Git, Word, PowerPoint

Projects [\[View all projects at soumyadeepb2001.github.io/software_projects\]](#)

Microloom: A Social Media Web Application

- Developed using **ASP.NET 4.8, C#, HTML, CSS, JavaScript, Bootstrap** and **MS SQL Server**.
- Implemented **authentication and authorization** via cookies; used **OTP verification** for password resets.
- Enabled **post creation, reactions (likes and dislikes), sharing, and commenting**.
- Integrated **real-time messaging** with **SignalR** and built a **notification system** for user interactions.
- Designed a profile system allowing users to **edit profiles, upload profile pictures, and view interaction history**.

Hotel Management System and Hotel Booking Website

- Developed using **ASP.NET 4.8**.
- Implemented **secure user authentication** using **OTP**.
- Designed an intuitive interface for **hotel staff** to **manage operations** and for **guests** to streamline **bookings**.

Java Swing-Based 2D Games

- Built games like **Block Breaker, Match the Tiles, Minesweeper, Eight Puzzle** and **Dodge the Obstacles**.
- Implemented **collision detection, game-over logic, responsive controls** and used **A* and Minimax** algorithms.

Huffman Encoder and Decoder

- Developed a Java app to compress and decompress files using **Huffman encoding and Huffman Trees**.
- Built Huffman encoder and decoder using a **frequency-sorted Huffman tree**. Creates a custom **.huff** file.
- Handled **file extension preservation** and **lexicographically** sorted frequency tables for **accurate restoration**.

Image and Audio Steganography Tool

- Built a Java GUI app for **LSB steganography** to hide **encrypted text** in **PNG** and **WAV** files.
- Used **Caesar cipher** with a **user-defined shift** value; embedded cipher key within hidden data.
- Applied **OOP** principles to encode data into **RGB pixel** values and the **least significant bit** of the **least significant byte** in **WAV** audio samples, with support for **LittleEndian** format.
- Implemented custom decoding logic for accurate **extraction** and **decryption** from **image** and **audio** files.