

# Soumyadip Saha

[sahasoumyadip1802@gmail.com](mailto:sahasoumyadip1802@gmail.com) | [+91-6291896741](tel:+91-6291896741) | [LinkedIn](#)

## CAREER OBJECTIVE

Seeking a technical role to leverage my programming, web development, and database skills to design innovative solutions. Eager to contribute my technical and collaborative problem-solving abilities in a forward-thinking environment, driving organizational success and professional growth.

## EDUCATION

|   |                           |
|---|---------------------------|
| <b>Bachelor of Technology (B. Tech) - Electronics &amp; Communication Engineering</b> | 2021 - 2025               |
| Academy of Technology (MAKAUT)  | CGPA: <b>8.07/10</b>      |
| <b>Senior Secondary (XII), CISCE   Science</b>  | Percentage: <b>79.75%</b> |

## SKILLS

- **Programming Languages:** Python, Java, C
- **Web Development:** HTML5, CSS, JavaScript
- **Database:** MySQL
- **Fundamentals:** Data Structures, Object-Oriented Programming
- **Tools:** Git, GitHub, VS Code, IntelliJ IDEA
- **Soft skills:** Communication, Teamwork, Adaptability, Time Management

## PROJECTS

### Sorting Algorithm Visualizer | [GitHub Repo](#) | [Live](#)

- Developed a web-based visualization tool using **HTML**, **CSS**, and **JavaScript** that demonstrates more than five sorting algorithms.
- Implemented interactive visualizations showcasing real-time swaps and data movements, enhancing the understanding of algorithm efficiency and performance.
- Integrated user controls for speed and array size to illustrate the impact of input scale on runtime.

### Solar Cell Power Output Optimization (Academic Project)

- Developed a **Particle Swarm Optimization (PSO)**-based MPPT algorithm in **Python**, dynamically optimizes voltage to maximize solar power output under varying environmental conditions, resulting in up to **16%** improvement in energy extraction efficiency.
- Visualized results through detailed plots, enabling data-driven analysis.

### Hospital Management System | [GitHub Repo](#)

- Built a **Java**-based Hospital Management System incorporating **OOP** principles (encapsulation) to implement a structured, user-friendly workflow for managing hospital records.
- Included features such as patient and doctor record management, as well as appointment scheduling with availability checks.
- Utilized **JDBC** with **MySQL** for database interactions and real-time data handling.

## INTERESTS

Chess (strategic thinking) | Photography (attention to details, digital editing)