

Susovan Das

+91-7761827028 • susovandas805@gmail.com • Portfolio

GitHub • LinkedIn

Bachelor of Technology in Computer Science & Engineering
Narula Institute Of Technology, Agarpara, Kolkata



SUMMARY

Pre-final year Computer Science student specializing in backend development and machine learning. Experienced in building scalable web applications using Spring Boot and React, with published IEEE research in computer vision. Strong focus on API design, microservices, and real-time systems.

TECHNICAL SKILLS

Languages : Java, Python, C/C++, JavaScript
Frontend Development : React.js, TailwindCSS, HTML, CSS, Vite
Backend Development : Spring Boot, Spring MVC, REST APIs, Hibernate
Databases : MySQL, PostgreSQL, MongoDB, Firebase
AI & ML : TensorFlow, Scikit-learn, OpenCV, Pandas, NumPy
OS & Tools : Linux, Git, Docker, Postman, IntelliJ IDEA, VS Code
Core Concepts : OOP, Multithreading, JVM, API Design

ACHIEVEMENTS

- **Hackathon Winner and Finalist.** [🔗](#) May, 2025
 - Secured 1st place in Inter-college Hackathon Hack-O-NiT 2025 among 108+ teams.
 - Ranked Top 10 statewide in Smart Bengal Hackathon 2025 among 800+ teams.
- **Published IEEE Research Papers.** [🔗](#) Feb, 2026
 - Transfer Learning Approach for Medicinal Plant Classification using ConvNeXt and SVM.
 - AI-Driven Crop Disease Prediction and Management System with ResNet50.

PROJECTS & EXPERIENCE

- **Budget Tracking and Monitoring System.** [🔗](#) March, 2026

A simple yet effective solution for tracking transactions and monitoring budgets.

 - Designed a responsive UI using **React.js** with **interactive graphs and data visualizations** for improved user insights.
 - Developed the backend using **Spring Boot**, enabling efficient **transaction management** and **API handling**.
 - Implemented **JWT-based authentication** with email verification using **SMTP**, ensuring secure user access.
 - Added **data export functionality**, allowing users to download reports in Excel format.
- **Smart Waste Monitor System.** [🔗](#) Jan, 2026

Full-stack IoT solution for real-time waste management and logistics.

 - Engineered an IoT-based smart bin utilizing **ESP32 microcontrollers**, integrating **HC-SR04** sensors for capacity tracking and iterating on custom hinge mechanisms for reliable automated lid actuation via **MG995** servos.
 - Implemented **real-time data synchronization** between the hardware nodes and a **Supabase** backend, ensuring low-latency updates and triggering background notifications for bin status.
 - Developed a centralized **React.js admin dashboard** for system monitoring, alongside a dedicated mobile application streamlining workflows for field workers.
 - Designed and deployed a **custom role-based authentication** flow for the worker application, managing operational access securely outside of standard Supabase auth tables.
- **Accident Detection and SOS Smart Helmet.** [🔗](#) Feb, 2025

IoT-based smart helmet for accident detection and emergency alerting

 - Built an **IoT-based smart helmet** that reduced **emergency response time by 70%** using **GPS + SMS alert system**.
 - Integrated **ESP32, MPU6050, and Neo-6M GPS** for **real-time accident detection**.
 - Developed **Arduino firmware** and connected the system to **Firestore** for live tracking and alerts.
 - Created a **React Native mobile app** with **real-time location monitoring** via Google Maps.

EDUCATION

- **Narula Institute Of Technology**, Aragrpara, Kolkata 2023 - 2027
 - 8.68 CGPA Till now
- **kendriya vidyalaya**, Bokaro Jharkhand 2020 - 2022
 - Class XII (PCM) | 78.66%