

SUBHAYAN ROY CHOWDHURY

Software Engineer | Full Stack Developer | ML Engineer

Kolkata, West Bengal, India

📞 +91 6289955350 ✉️ src23022004@gmail.com 🔗 [linkedin.com/in/subhayan-roy-chowdhury](https://www.linkedin.com/in/subhayan-roy-chowdhury)

Professional Summary

Full Stack Developer with expertise in MERN stack, machine learning, and cloud technologies. Published researcher in Deep Learning. Experience in building scalable applications, real-time systems, and hosting technical events of 500+ participants.

Technical Skills

Languages: C++, Python, JavaScript, TypeScript, Java, SQL, HTML5, CSS3

Frameworks: React.js, Node.js, Express.js, Redux, TensorFlow, PyTorch, Django, Next.js

Databases & Tools: MongoDB, MySQL, PostgreSQL, Docker, Kafka, Winston, Git, AWS, Linux

Specializations: Machine Learning, Deep Learning, RESTful APIs, Docker, UI/UX

Education

Jadavpur University

Oct 2022 – May 2026

B.E. in Information Technology, CGPA: 8.7

Kolkata, India

– **Coursework:** DSA, OOP, DBMS, Computer Networks, OS, Machine Learning, Big Data Analytics

Bharatiya Vidya Bhavan

2021

Class 12 CBSE, 97.8%

Kolkata, India

Bharatiya Vidya Bhavan

2019

Class 10 CBSE, 98.2%

Kolkata, India

Professional Experience

Software Development Intern

May 2025 – July 2025

TCG Digital

Kolkata, India

- Developed real-time football streaming app for **DFB (German Football Association)** with multilingual LLM-driven translation (Hindi, Bengali, Malayalam) serving 10,000+ concurrent users.
- Built scalable backend APIs using **TypeScript, Express.js, Sequelize** with **Winston logging** and **Kafka** integration, achieving 99.9% uptime and 60% faster deployment via **Docker**.
- Integrated multiple streaming protocols (**HLS, SRT, RTMP, RTSP**) and developed responsive **React.js** frontend with **Redux**, improving user engagement by 40%.

Projects

MER_NET: Music Emotion Recognition | TensorFlow, Python, Deep Learning

- Published research at **ICDMAI 2025** with hybrid LSTM + Feedforward model achieving **98.4% accuracy** across 3 benchmark datasets. Won **Best Research Paper Award**.
- Implemented advanced feature extraction using MFCC and spectrograms, processing 50,000+ audio samples.

Shopper - E-commerce Platform | MERN Stack, Stripe API | Live Demo

- Built full-stack e-commerce platform with secure authentication, payment gateway, and order management supporting 100+ users with 2-second average load time.
- Designed scalable architecture using **React.js, Node.js, MongoDB**.

Achievements

- **Best Research Paper**, ICDMAI 2025 for MER_NET among 50+ submissions.
- **Best UI/UX Award**, HackForge 2024 Hackathon, Jadavpur University (100+ teams).
- **GATE CS 2025**: AIR 2713, 98.4 percentile while in 3rd year. [Scorecard]
- **Ranked 17th** out of 500+ in Kharagpur Data Science Hackathon 2024.
- **Event Head**: Organized Sherlocked at Srijan 2025 with 500+ participants involving cryptography and SQL challenges.

Languages

Languages: English (Professional), Bengali (Native), Hindi (Native), Spanish (B1)